

# THE NATION'S BUSINESS

February  
1923



2  
Cen.

## Reparations—and Business

by JULIUS H. BARNES

### The Reasons for RURAL CREDITS

by BERNARD BARUCH

### The Hidden TAX in Your PREMIUM

The first of a series on Insurance from the  
Policy Holder's Viewpoint

### MIDDLEMEN—Can We Do Without Them?

by L. D. H. WELD



Published by the Chamber of Commerce of the United States



## For 16 Years INTERNATIONAL Motor Trucks Have Made Transportation History

WHILE others have come and disappeared again, International Motor Trucks have advanced steadily to a position among the few leaders in truck sales. Year after year their sound reputation has been passed on from old to new owners. Their popularity is conceded by users. Fleet orders and repeat orders, based on dependability, utility, and low operating cost, are forcing production to new records.

Unusual economies go with investment in International Motor Trucks—economies in first cost, performance, and upkeep—the logical result of this Company's 90-year manufacturing experience. Prospective buyers will find, in this full line of trucks, sizes and styles to meet the most exacting hauling problems.

Among the many exceptional elements in the International system of motor truck design, manufacture, distribution, and servicing, we shall touch here only on the matter of International after-sale service.

This Company is fortunate in the pos-

session of a unique field organization, capped by 93 branch houses strategically located in principal cities. These have been functioning for years in the interests of the Company's varied activities. Each maintains a completely equipped motor truck service station, in charge of highly trained specialists and road engineers whose single purpose is to safeguard the performance of International Motor Trucks.

These extensive facilities, linked with the service of thousands of truck dealers, enable us to maintain our Free Inspection Service Policy. This exclusive feature protects all International Trucks with a 4-times-yearly free inspection by factory trained road engineers. It is of tremendous cash value to owners whose trucks must be kept in continuous hard use.

International Motor Trucks are built in 12 sizes, ranging from the 2000-lb. Speed Truck to the heavy-duty unit of 10,000 lbs. capacity. Special bodies available for every purpose. Mail all requests for information to this address:

These illustrations show popular types of bodies available with the Speed Truck chassis. Similar styles provided also for all larger models.



Model S International Speed Truck with open express body and enclosed cab. Three-quarter or semi-enclosed cab can be supplied.



Panel stake body with three-quarter enclosed cab. Enclosed or semi-enclosed cab can be supplied with this type of body.



Open express body with full length top and three-quarter enclosed cab. Enclosed cab and side and rear screens available if desired.

### INTERNATIONAL HARVESTER COMPANY

CHICAGO OF AMERICA USA  
(INCORPORATED)

International Motor Truck Dealers' Contracts Are Still Available at a Few Points

### A Few Standard Types of Truscon Buildings

Lengths: Any Multiple of 2'-0". Heights: 8'-1" or 21'-5".

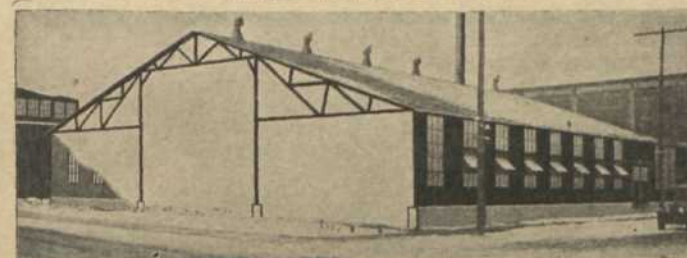
Any combination of types; any door or window arrangement; lanterns, canopies and lean-tos as desired.



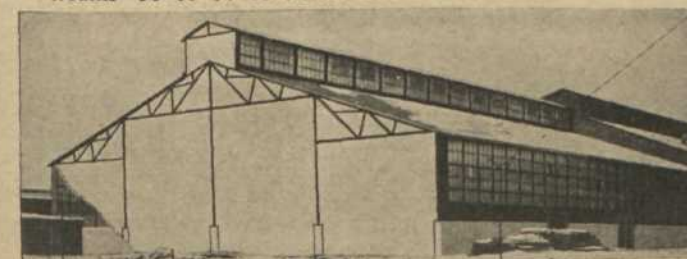
TYPE 1 (Clear Span)  
Widths—8'-12'-16'-20'-24'-28'-32'-40'-48'-50'-60'-68'



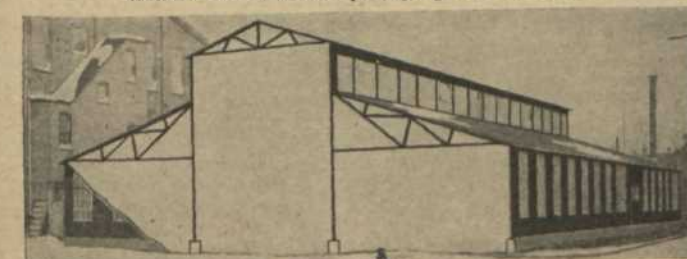
TYPE 2 (2 Bays) with Canopy  
Widths—40'-48'-50'-56'-60'



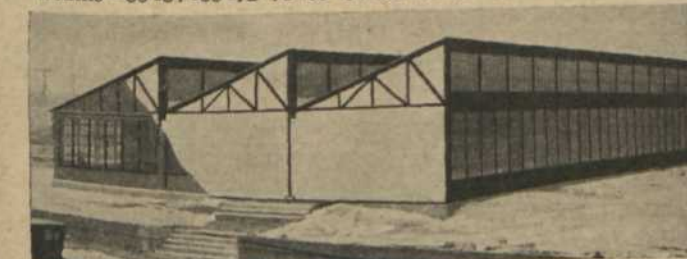
TYPE 3 (3 Bays)  
Widths—56'-60'-64'-68'-72'-76'-80'-84'-88'-96'-98'-106'-108'-116'



TYPE 4 (4 Bays) with Lantern  
Widths—80'-100'-112' (4 Bays @ 20'-25' or 28')



TYPE 3M (Monitor)  
Widths—60'-64'-68'-72'-76'-80'-84'-88'-90'-96'-98'-100'-106'-108'-116'



SAWTOOTH TYPE  
Widths—Any Multiple of 28'-0"

## TRUSCON STANDARD BUILDINGS

### Speedy Winter Building Without Extra Cost

These individualized buildings—fireproof, permanent, and satisfying your exact needs—can be erected regardless of weather, at very low cost. They meet all one-story, and many two-story business and commercial requirements. Truscon Standard Buildings are furnished with walls of brick, concrete, or steel panels. Windows and doors are of steel. A few typical arrangements are here shown.

Over 10,000,000 square feet of floor area of Truscon Standard Buildings are now in successful use for factories, warehouses, foundries, shops, railroad buildings, oil buildings, garages, service stations, and many other purposes. The standardized units composing these buildings make possible an infinite variety of sizes and arrangements. They also permit of dismantling the buildings and re-erecting them with 100% salvage value.

### Send for Full Information

Learn how Truscon Standard Buildings can serve *your* needs. Return coupon or write us.

**TRUSCON STEEL COMPANY**  
YOUNGSTOWN, OHIO

*Warehouses and Sales Offices in Principal Cities*

TRUSCON STEEL CO., YOUNGSTOWN, OHIO

Send useful building book and suggestions on building  
to be used for.....

Type.....Length.....Width.....Height.....

Name.....

Address.....

(NB-2)



## "What to do?"— the question that makes men—or breaks them

**A**LMOST every day in any large business some unusual problem arises which is beyond the experience of even the best informed men in the organization. It is then that the right answer to the question "What to do?" will often make a man—the wrong one break him.

It is not unfair to say that an institution such as LaSalle—with its millions of dollars in financial resources—its staffs of highly specialized experts—its organized files of business data—its facilities for business research—is, because of the very nature of its work, in a position to give advice which no single individual could possibly attempt—no matter how important his work—no matter how wide the scope of his experience.

Daily we have cases arise where opportunity is knocking at the door of a LaSalle student—provided he answers correctly the "What to do?" of the immediate moment.

By means of a broad Consultation Service—open to all LaSalle members—law suits are averted—financing problems are solved—sales are increased, for individuals and corporations—thousands of dollars are saved in freight charges—factory costs are cut—production is increased—emergency situations are promptly and properly dealt with—all by our students, with the advisory facilities of LaSalle back of their actions.

These unusual resources are at the call of every LaSalle student. He is not limited to the department in which he is enrolled, but may avail himself of the full advisory resources of any or all of our highly specialized departments and staffs.

When a person enrolls with LaSalle, it is, in general, for the immediate purpose of increasing his earning power, by a training which will enable him to function successfully in the more liberally rewarded fields of business endeavor.

But LaSalle's interest does not rest with supplying specialized training.

On the contrary, it follows the man "on the job"—goes with him as he advances in position and responsibility—helps him make good, every step of the way. Thru all the years of his business activity

the entire educational and research facilities of LaSalle stand solidly behind him—ready to help him solve any new or unusual business problem with which he or his employer may be confronted.

It is this character of service that has been responsible for the growth of LaSalle—to proportions far beyond what any man would have dreamed a correspondence institution could reach in the field of business training.

As I look back over the decade past—consider the four hundred thousand men who have enrolled with LaSalle—everything we have done or tried to do—both in our business training courses and in our supplemental services—centers in the important work of helping ambitious men to answer with soundness and authority the "What to do's?" of business life.

The man who realizes what LaSalle training and LaSalle consultation service might mean to him and his future, but who fails to go further—to investigate—is answering his most vital "What to do?" with inaction—is deliberately turning away from Opportunity.

*J. Henopline*  
President  
LaSalle Extension University

### LA SALLE EXTENSION UNIVERSITY Dept. N-2 Chicago, Illinois

Upon request, the book "Ten Years' Promotion In One," and material completely descriptive of the course and service that interests you, will gladly be sent without cost or obligation. Just indicate your choice by checking, and write below your name and address.

- |   |  |
|---|--|
| <input type="checkbox"/> Business Management        | <input type="checkbox"/> Modern Business Correspondence and Practice |
| <input type="checkbox"/> Modern Salesmanship        | <input type="checkbox"/> Modern Foremanship and Production Methods   |
| <input type="checkbox"/> Higher Accountancy         | <input type="checkbox"/> Personnel and Employment Management         |
| <input type="checkbox"/> Law—Degree of LL.B.        | <input type="checkbox"/> Expert Bookkeeping                          |
| <input type="checkbox"/> Traffic Management         | <input type="checkbox"/> Business English                            |
| <input type="checkbox"/> Railway Station Management | <input type="checkbox"/> Commercial Spanish                          |
| <input type="checkbox"/> Commercial Law             | <input type="checkbox"/> Effective Speaking                          |
| <input type="checkbox"/> Industrial Management      | <input type="checkbox"/> C. P. A. Coaching                           |
| <input type="checkbox"/> Efficiency                 |  |
| <input type="checkbox"/> Banking and Finance        |  |

## LA SALLE EXTENSION UNIVERSITY

*The Largest Business Training Institution in the World*

# To the Directors of Corporations

If you are contemplating the construction of a new plant, a new addition, alterations or branch plant buildings, The Austin Company is prepared to furnish you with designs, specific building information and approximate costs or even exact costs that will assist you in determining the advisability of carrying out your plans for new construction.

Austin engineers are prepared to submit helpful data—estimates and preliminary sketches of your proposed buildings—for any type of structure, single story or multi-story, whether the project involves 25,000 or 500,000 square feet of floor space.

At the same time The Austin Company guarantees delivery—in 30, 60 or 90 working-days, depending upon the type and size of your project. You can know definitely at the outset, when your new build-

ing will be ready for useful occupancy.

Furthermore, information relating to building conditions in any section of the country is immediately available through ten strategically located Austin Branch Organizations. For example, you may desire an estimate covering the addition of 25,000 square feet of floor space at your main plant, or for a certain type of building to be erected in Seattle, Los Angeles, Boston, or Fort Worth. Austin engineers will furnish this information without delay—and irrespective of future relations.

The Austin Company is prepared to undertake all details of your building project—designing, building and equipment. Maximum construction service at minimum cost is assured. Send for the Austin Book of Buildings.

## The Austin Company, Cleveland *Engineers and Builders*

NEW YORK.....217 Broadway  
CHICAGO...1374 Continental and Commercial  
Bank Building  
CLEVELAND.....16112 Euclid Avenue  
DETROIT.....1954 Penobscot Building  
PITTSBURGH.....493 Union Arcade  
PHILADELPHIA.....1026 Bulletin Building



DALLAS.....627 Linz Building  
ST. LOUIS.....1794 Arcade Building  
SEATTLE.....1603 L. C. Smith Building  
BIRMINGHAM, 1317 Jefferson Bank Building  
LOS ANGELES  
THE AUSTIN COMPANY OF CALIFORNIA  
702 Pacific Electric Building

# AUSTIN

## ENGINEERING-BUILDING-EQUIPMENT

### The Austin Company, Cleveland

We are interested in having information which will assist us in carrying out our building program for 1923, and would be pleased to have you explain more fully how the services of your organization can be applied to our problems. We are considering (main plant construction) (branch plant facilities) at the following locations

We would be pleased to have a copy of the Austin Book of Buildings.

Firm.....

Individual.....

Address..... N. B. 2-23



*Reproduction from a painting in oil, by Chas. A. Wilimovsky, of Arbor Lodge, Nebraska City, Neb., home of the late J. Sterling Morton, founder of Arbor Day. The trees on this historic place were treated by Davey Tree Surgeons*

Among prominent places and persons served by Davey Tree Surgeons are the following:

OLIVER AMES  
MORTIMER SCHIFF  
S. DAVIES WARFIELD  
MAUDE ADAMS  
COLUMBUS COUNTRY CLUB  
BATTLE CREEK SANITARIUM  
STARK BROS. NURSERY CO.  
KENTUCKY TROTTER HORSE  
BREEDERS' ASS'N



JOHN DAVEY  
*Father of Tree Surgery*

## How should you choose your Tree Surgeons?

**A**SSUMING that you are an average tree-owner, you have neither the time nor the desire to study in detail the technique and science of saving trees. You have no means of knowing Tree Surgery values, either in correct methods or reliable men. Therefore you must buy Tree Surgery service on faith.

Twenty-two years ago John Davey published his first book, "The Tree Doctor." Then began the slow and conscientious building of the Davey organization. In those early years the business was measured in hundreds and thousands of dollars. In 1922 the business amounted to one million dollars. During the past twenty years more than eighteen thousand clients have been served—more than four hundred thousand trees have been treated and saved. During the same period, many tree men have sprung up, lasted for awhile and disappeared. The Davey organization is the only concern that has endured and grown steadily and proven its inbred merit. The law of cause and effect makes this success significant.

The Davey organization is the one safe place to go. You do not need to know anything about trees or Tree Surgery values. Every Davey Tree Surgeon operates according to fixed high standards and under strict discipline—you could not hire or persuade him to give anything but standard Davey Service.

*Davey Tree Surgeons are near you—if you live between Boston and Kansas City or in California. Write or wire nearest office for examination of your trees without cost or obligation.*

**THE DAVEY TREE EXPERT CO., Inc., 3702 Elm Street, Kent, Ohio**

*Branch offices with telephone connections: New York, Astor Trust Building, Fifth Avenue and 42nd Street; Boston, Massachusetts Trust Building; Philadelphia, Land Title Building; Baltimore, American Building; Pittsburgh, 331 Fourth Avenue; Buffalo, 110 Franklin Street; Cleveland, Hippodrome Building; Detroit, General Motors Building; Cincinnati, Mercantile Library Building; Chicago, Westminster Building; St. Louis, Arcade Building; Kansas City, Scarrill Building; Los Angeles, Garland Building; Montreal, 252 Laugachilere, West.*

# DAVEY TREE SURGEONS

*Every real Davey Tree Surgeon is in the employ of The Davey Tree Expert Co., Inc., and the public is cautioned against those falsely representing themselves. An agreement made with the Davey Company and not with an individual is certain evidence of genuineness. Protect yourself from impostors. If anyone solicits the care of your trees who is not directly in our employ, and claims to be a Davey man, write headquarters for his record. Save yourself from loss and your trees from harm.*

## Through the Editor's Spectacles

ONE SHORT PARAGRAPH of two sentences in Herbert Hoover's new book, "American Individualism," says more than many volumes in effective answer to the soap-box orator. Here it is:

That our system has avoided the establishment and domination of class has a significant proof in the present administration in Washington. Of the twelve men comprising the President, Vice-President and cabinet, nine have earned their own way without economic inheritance and eight of them started with manual labor.

Won't some practical business man step forward and tell us how we can use that paragraph when flannel-mouthed agitators address the "down-trodden," raise the red flag and cry "Down with the Government!"? Some plan ought to be worked out so that at the conclusion of such speeches attacking our capitalistic government—and they are not all delivered on street corners, either—a placard could be raised with some such inscription:

HARDING—Country Printer  
COOLIDGE—Farmer's Boy  
HUGHES—Preacher's Boy  
WEEKS—Farmer's Boy  
DAUGHERTY—Store Clerk  
WORK—Farmer's Boy  
FALL—Cowboy and Miner  
WALLACE—Farmer's Boy  
HOOVER—Blacksmith's Boy  
DAVIS—Iron Puddler

It would be a flabbergaster. Just imagine the scene at the peroration. "Rise up, fellow-workers (sic), and throw off the damnable bondage of Wall Street. The tyrant's heel is on our necks. The blood-suckers are in control of our government. Privilege (with a capital P) sits enthroned at the White House—"

This would be the cue for the placard. Catch the orator with his mouth wide open and watch it slowly close. Then turn the placard to the crowd. It's dollars to roubles that the ancient humor of an American audience would assert itself, and laugh down the red flag.

AND TO THOSE not politically inclined, the month's story of the rise of one White from slaughter house to the head of Armour & Co., or, office boy James Simpson, to the head of Marshall Field, might not be without its appeal.

TWO ARTICLES last month struck home, judging from the number of reprints and the letters we have received from readers.

President Herr of the Westinghouse Electric Company liked the article "Our Dollars Go Guarded Overseas" because, as he says:

It brings out in a very clean and forcible way not only the importance of our people investing abroad but the magnitude of such investments already made. I feel that the education of our people in this direction is so important that we can scarcely have too many sound articles on the subject of investments in foreign securities and projects.

President Clarke, of the American Exchange National Bank, New York, thinks with Mr. Herr that it is desirable that the

25 Cents a Copy

\$3.00 a Year

## In this Number

	PAGE
Reparations—and Business.....	By JULIUS H. BARNES..... 11
Lo! The Poor Middleman.....	By L. D. H. WELD..... 12
A Shop Congress That Works.....	By ALBERT SIDNEY GREGG..... 14
Food at 50 Miles an Hour, Costs..	By RAYMOND WILLOUGHBY..... 16
Germans Sell, But Don't Deliver...	By CHARLES LYON CHANDLER..... 18
Management .....	By BERTON BRALEY..... 19
The Hidden Tax in Your Premium...	By WILLIAM PICKETT HELM..... 20
Italy's Black Shirts and Business...	By BASIL MILES..... 22
How and Why of Rural Credits...	By BERNARD M. BARUCH..... 24
What America's Railroads Need...	By CHARLES FREDERICK CARTER..... 25
Selling the Historic Past.....	By HARVEY FERGUSON..... 28
Handling Men, the Mitten Way...	By RICHARD SPILLANE..... 29
An Indiana Railroad Knight.....	By GEORGE HOWARD..... 31
Exporting Transportation.....	By FREDERICK SIMPICH..... 33
Human Nature in Business.....	By FRED C. KELLY..... 35
Editorials .....	36
Government Aids to Business.....	38
National Chamber's New Home.....	41
Selling New York to New Yorkers..	By STANLEY J. QUINN..... 42
Plans For Rome Meeting.....	43
Along the Side Roads of Industry..	By RICHARD SPILLANE..... 44
Business Conditions With Map...	By ARCHER WALL DOUGLAS..... 45
From Grasshopper to Man.....	By JAMES B. MORROW..... 48
A Farm Bloc in Full Power.....	By A. A. POTTER..... 61
Tying the College to Industry.....	By WALTER E. DYMOKE..... 54
How to Ask Uncle Sam for Figures.	By C. C. SMITH..... 66
Some Recent Books on Business.....	71
Nation's Business Observatory.....	74
Log of Organized Business.....	85
Specialization in Crops and What It Means.....	By CAROLINE B. SHERMAN..... 93

Vol. 11

## THE NATION'S BUSINESS

No. 2

Published Monthly by the Chamber of Commerce of the United States, Washington, D. C.

MERLE THORPE, Editor and Publisher

Managing Editor

Associate Editors

WARREN BISHOP

BEN H. LAMBE

JOYCE O'HARA

J. B. WYCKOFF, Asst. Business Manager

VICTOR WHITLOCK, Director of Advertising

GENERAL OFFICES: MILLS BUILDING, WASHINGTON, D. C.

Eastern Office, New York

Western Office, Chicago

Central Office, Cleveland

Woolworth Bldg.

Otis Bldg.

Cleveland Discount Bldg.

GEORGE K. MYERS

FRANK M. CROMMELIN

CLYDE A. STEVENS

As the official magazine of the National Chamber, this publication carries authoritative notices and articles in regard to the activities of the Chamber. But in all other respects, the Chamber is not responsible for the contents of the article or for the opinion to which expression is given.

public should be informed, and adds, "this particular article from such an authoritative source is very illuminative."

Mr. Butterworth, president of Deere & Company, takes time out to comment on it as follows:

I have read with very great interest the article of Frederick Simpich in the December issue of NATION'S BUSINESS. I have hopes that this article will be widely read because it has information which I believe few of our people have.

I believe in what Rathenau says, that "Economics is the fate of the people." The more our International Chamber of Commerce can do to bring about satisfactory and mutually profitable business relations between the people of the different nations, the more nearly are we going to reach a permanent peace. Business people of the nations will not, if their business relations are satisfactory and going along in a profitable way, stand for any acts on the part

of governments which will disturb those relations. I am hopeful that the representatives of the different nations in the International Chamber of Commerce in Paris can bring about these business relations on a basis which will mean permanency. If this can be done with the backing of our country to see that we have the same chance as other nations, I am satisfied that the United States will be as successful as other nations in the markets of the world.

I notice some other very interesting articles in this number, one by Mr. Silas Bent, and another by Mr. James B. Morrow and still another by Mr. O. P. Hood. I think the whole number is most interesting.

A HALF hundred readers had something to write us about "Why Is a Railroad President?" Some found fault. A railroad president, for example, took exception to the article on the ground that a railroad president's salary and how he em-

# DeVry

## MOVING PICTURES

The DeVry is the sturdy little projector used by all big business houses and Governmental Departments to project motion pictures of theater size and quality from any electric light socket. It weighs but 23 pounds and is built to give permanent satisfaction.

## For Business

In Business the DeVry will sell, advertise, entertain employees, assist in welfare work and render a hundred and one services for you just as it is rendering service for such representative concerns as Ford Motor Company, Cleveland Twist Drill Company, International Correspondence Schools, and a host of others.

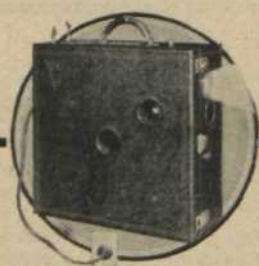
Write for

### "Motion Pictures in Business"

To show you how the DeVry will serve you we have prepared a booklet, "Motion Pictures in Business." A copy will be mailed you upon request without any obligation. The Coupon below is for your convenience.

### The DeVry Corporation

1253 MARIANNA STREET  
CHICAGO, ILLINOIS



The DeVry Corporation,  
1253 Marianna Street,  
Chicago, Illinois.

Please send me a copy of your booklet "Motion Pictures in Business" without obligation on my part.

Name .....  
Concern .....  
Address .....  
City..... State.....

plays his time is nobody's business except the Board of Directors of his company. He suggests that men who submit themselves to be voted into office by the people are entitled to have the publicity they court, but that presidents of railroads no more than presidents of manufacturing concerns should be featured.

All of which sounds like a voice from the dim, dead past. Whether for better or worse, the fact remains that the railroads, more than other industries, have acquired a semi-governmental status in the public mind, and the public has an interest in and demands to know about the management of railroads. The failure by railroads to realize this condition, to my mind, is one of the reasons that Plumb plans and government ownership schemes will not down.

Two other presidents think that the article lays too little stress on the ability of the men mentioned in the article to surround themselves, as aids, with men who are experts in their particular lines and to keep these men working in harmony and giving to the railroad all that they have to give. Says one,

I do not mean in any way to detract from the accomplishments of any of these men, but, undoubtedly, many of the things which are mentioned in this article were done at the suggestion of some member of the official family of the particular road involved. To give credit to the official staff does not in any way detract from the credit which is due to the head.

In similar vein, another writes:

This article lays unwarranted stress upon exceptional matters, rather than stressing the importance of the diligent and continuous exercise of the duties and functions of the office of president.

Mr. Hale Holden, president of the Burlington, writes:

I do not know that I am an unprejudiced critic of an article of this kind because I naturally and thoroughly agree with it. The salaries of railroad presidents vary widely in accordance with their responsibility and if out of line with executives in other lines of business having similar responsibility, it is because they are less rather than more in amount of pay for services rendered. Tested by comparison in this manner as well as in relation to the volume of total expense, comment of the kind which is occasionally heard from some quarters is not only absurd but can only be accounted for from motives other than a frank consideration of the merits of the question.

The outstanding difficulty today in railroad service is to secure the interest and willingness of capable men to enter or remain in the service, and this is becoming particularly true in the effort to attract young men to embrace it. If men cannot do as well, reasonably speaking, in making railroading their profession as in other walks of life, less capable and efficient men will make up the personnel and that will be the beginning of the end of the kind of railroad operation which has been the outstanding feature of the transportation industry in this country.

THE Plain Talker came in the other day and opened fire with this:

You're printing a lot on immigration and what kind of folks should come in, and it's all right. I've read some of it. But sometimes I think there's a lot of fool talk about all folks from one part of the world being bad and all the folks from another being good. Burke couldn't see any way of indicting a whole people, and I don't think you can damn a race by calling 'em Wops or Kikes or Hunkies.

Which leads me to the story of Joe Pollice (two syllables) who probably began life as Giuseppe Pollice (three syllables and the "c" pronounced soft "ch").

But the little town in Northern New Hamp-



The New *Weis* No. 1924

Light Natural Oak

**\$22.50**

**FREIGHT PAID**

in Eastern and Central States

**\$28.00 in South, Southwest and West**

Let This High Grade

*Weis*

Letter File and a Cleardex  
System Simplify Your  
Correspondence Filing

In the purchase of a file you want one that is equipped with smooth, quiet working drawers, that is well constructed to stand years of wear, that is handsome in appearance to harmonize with its surroundings, in fact a reasonably priced file that will do all any higher priced one can do. The No. 1924 will meet all these requirements.

## The *Weis* Cleardex

Is an arrangement of guides and folders that is the outgrowth of many tested methods—condensed into one system that is today conceded to be the most simple and best balanced method one can use. Let us tell you more about our Cleardex, or if you have other filing problems you can no doubt find an answer in our booklet.

## Filing Suggestions

Cheerfully mailed without cost along with our catalog of filing equipment supplies and sectional bookcases. Just tear out this ad, write name and address thereon and mail.

The *Weis* Manufacturing Co.

92 Union St.

New York Office  
52 Park Place

Monroe, Mich.

shire, where he had his first little fruit stand, just called him Joe Police—mostly Joe.

Joe couldn't have passed much of a literacy test. I don't know that he could even read or write. But he was a good citizen and a reasonably successful one. His fruit stand became a small store, then a large one. Finally it was about the best market in town and a service that could sell goods.

Joe's family grew too. More than that, a sister or a brother died, leaving two or three orphans, and Joe took them in. I don't know how many there were in all, seven or twelve—a houseful anyway.

And there was no illiteracy about the youngsters. They went to school and they were good scholars. Joe's oldest boy went to college, and some of the others did, too, I guess. I know the oldest boy got out right on top of his class—Phi Beta Kappa and all that sort of thing.

By and by most of Joe's family got old enough to look out for themselves. New Hampshire's winters, I guess, began to get colder and colder and Italy seemed sunnier and sunnier. So Joe Police decided to sell out, take his savings and what was left of his family and go back.

And this is what I was coming to. When it got noised around that Joe Police was going home, the town—not officially, but mighty near unanimously—decided to chip in a dime apiece and give him a loving cup. And they did—barber, bank president and all.

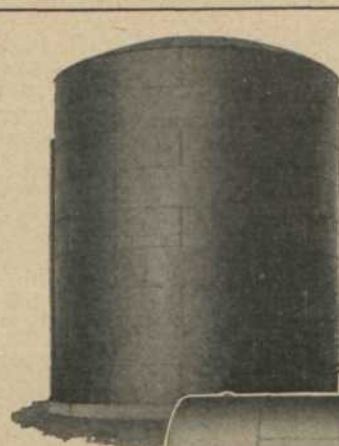
Joe Police was a good citizen even if he did go home at last. He gave America the best he had, including a good part of his family. All this was some years ago, and maybe I don't know the end of the story. I don't even know whether he stayed in Italy or whether he's back here. But when I hear folks talking loose about "Wops" and "Scum of South Europe," I sometimes think of Joe Police and the loving cup.

WHICH reminded me of a news note in the morning paper. I fished it out of the waste paper basket and passed it over to the Plain Talker. He read the story of Henry A. Dix, head of a prosperous dress goods concern in New York City, who passed in his chips and now sits back from the game to watch his "boys" carry on. The employees who helped him build the business are to succeed to the management. Mr. Dix drew a salary of \$60,000 a year as manager; he will now receive 50 cents a year as a director. No money came to him with the transfer of authority to his men; instead, he made a loan of \$250,000 which will be used as capital by the new management.

Mr. Dix came here from Russia. He was forty-two years old then. He entered the dress goods trade and went steadily forward to substantial success. The record of the business is clear of strikes, it shows that his employees worked only five days a week, and that the annual volume of sales was considerably more than a million dollars at the time of Mr. Dix's withdrawal.

Somehow, the case of Joe Police and Henry Dix should be written somewhere into the next immigration law.

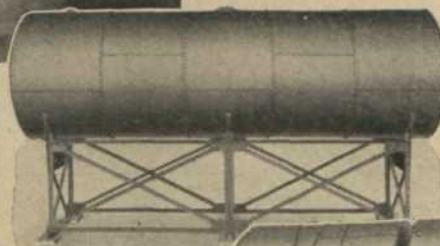
"ON WHAT meat doth this our Caesar feed. . . ." The immortal bard put the question and ran away without answering it, nor has anyone answered it until Consul Fisher at Nantes came along last week with the explanation that Caesar didn't feed on meat but waxed martial and mighty on hardtack. Consul Fisher has delved deeply into Roman lore and passes on his finding under the authority of the ancients. Pliny the Younger wrote about the "panis nauticus" away back in A. D. 192. He marveled that it kept its pristine vigor so long in storerooms. Even in that early time, the



**PLATE WORK**

of all kinds  
Still (tar, crude and steam)  
Agitators  
Condenser  
Boxes  
Filters  
Special Tanks  
Smoke Stacks  
Bins  
Hoppers  
Penstocks  
Surge Tanks

**Get Our Estimates**



**175 Standardized Sizes in Stock**

Quality built into them, keeps trouble out. Get our rock-bottom prices today.

# Send for Special Bulletins

WORLD FAMOUS

## "SHARPSVILLE" Neverleak Tanks Unconditionally Guaranteed

You'll be glad you asked about "Sharpsville" Neverleaks. They're built powerful as a battleship. Heavy plates, lock-tite joints. Great, big, hot-driven, full head rivets inside and out. *Unconditionally guaranteed.*

### Amalgamated Lock-Weld A Superior Tank

In smaller sizes "Sharpsville" Amalgamated Lock-Weld Tanks are fast supplanting all ordinary welded types. They'll please your engineers. Special bulletins by return mail.



## Send for Complete Descriptive Bulletins

Complete descriptive bulletins on any style and capacity of tank sent on request. "SHARPS-

VILLE" Tanks have world-wide distribution. They please critical engineers. Tell us your needs today.

**Branch Offices**

Detroit  
Pittsburgh  
Raleigh  
Birmingham

### SHARPSVILLE BOILER WORKS CO.

Write Dept. 2  
SHARPSVILLE, PA.

Sales representatives wanted in open territory

**Branch Offices**

New York  
Philadelphia  
Cleveland  
Chicago

# "MAN ALIVE!"

BY HARVEY ALVARO BLODGETT

**A LITTLE BOOK FULL OF BIG THOUGHT.** It is a revelation to one's self of his latent powers. It charges one with hope, quickens aspirations and engenders a spontaneous interest in one's job.

### Representative Opinion:

A railroad president placed "MAN ALIVE!" in the hands of hundreds of employees. Corporation Executives, Public Accountants, Retail Merchants, Attorneys, Manufacturers, Bankers are distributing "MAN ALIVE!" among employees, relatives and friends. Fathers who read it pass it on to their sons.

The president of a metropolitan bank says: "It is the most inspiring thing of the kind I have ever read." A noted inspirational writer says: "It should be distributed in millions." A union switchman says: "If 'MAN ALIVE!' were placed in the hands of working men I am sure we should have more 'true blue' workers." An industrial manager says: "It should be read by every young man who is casting about to find himself." A commercial secretary says: "I believe that books of this kind will go a long way to offset the propaganda of labor leaders (of a certain type)." A traffic association executive says: "It ranks with Hubbard's 'Message to Garcia.'" High esteem of business executives and worker readers is unanimous.

### Use Coupon

ORDER A COPY ON APPROVAL. SINGLE COPY POSTPAID 50 CENTS. DISCOUNT IN QUANTITIES.

BLODGETT PRESS, St. Paul, Minn.

Send.....copies "Man Alive!" with bill.

Name.....

Location.....



**"NOTHING BUT BUSINESS PROPERTIES"**

Don't Over-Look—Don't Look-Over

**LOS ANGELES****Look At It!**

You will see America's fastest developing business city—an unequalled world marketing center—the logical location for your business or Western Branch—wonderful investment opportunities.

**Let's Discuss it—**

Over 17 years specialization in  
**"NOTHING BUT BUSINESS PROPERTIES"**

enables us to supply you valuable information.

**WE HAVE THE "FACTS"**

Sales  
Leases  
Licenses  
Exchanges

Bonds  
Insurance  
Property  
Management

**W. ROSS CAMPBELL CO.**

212-14 So. Spring St. Phone 52-1177

OUR HOME

On the heart of the financial district.

**Los Angeles, U. S. A.****Ask Any Business Man or Banker****STICKERS**

Bright, snappy advertising stickers that stick—applicable anywhere to anything—economic and persuasive. Every business needs them. Also a complete line of Standardized Stickers ready for shipment in amounts from a thousand to millions. All kinds of labels

Our price book in colors will save you money. Send for it

**ST. LOUIS STICKER CO.**  
1623 Washington Avenue ST. LOUIS

**Donley D. Lukens**

writer of

**Successful Sales Letters**

4908 Laclede Ave., St. Louis, Mo.

durable war biscuit was an article of food for the Roman soldiery; with the reign of Severus Alexander it had become a regular constituent of the field ration. From those days to our own, it has bolstered the strength of fighting men. Doughboys and hardtack— isn't that an unbeatable combination for making history! Now we begin to understand the German idea of "iron rations" for the field forces. "Blood and iron," to be sure!

**TWO REPORTS** on Russia have just reached my desk. One is from a correspondent of a Socialist paper, the other is from the secretary of the Committee for American Relief of Russian children. Here they are in parallel columns. Which is which?

The train on which I rode from Riga to Moscow was more comfortable than an American Pullman. From the windows could be seen fields full of workers; the crops looked abundant and fine. In Moscow the cabarets are crowded every night, and the monologues and songs sparkle with humorous references to the government. The Russian system is working like a charm.

Young girls are hitched in teams to pull plows and harrows in Russia. Peasants are selling themselves into economic slavery. Cases of cannibalism are reported. Russia's darkest year lies ahead. More than eight millions will require outside relief to live until next year's harvest.

It may be that both reports show the effect of "zeal, not judgment, becoming guide," or in homelier phrase, "the enthusiasm of advocacy."

**FEW THINGS** are more fascinating than the interrelation of industry. Not long ago we quoted someone's argument that the craze for Eskimo Pie had increased our export of pianos to Ecuador. How shall the introduction of a new game strengthen the demand for packing house by-products? Listen to this:

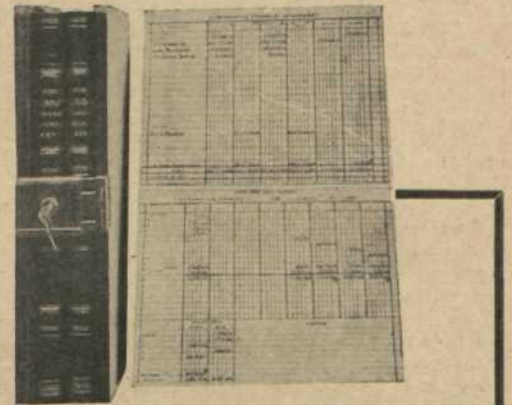
There has been a good demand for bones, especially for the Japanese trade. There is a new game in Japan which is similar to dominoes which required 30 to 40 pieces. The game has been introduced into California and all along the Pacific coast.

The potential inch on a Chinaman's shirt-tail which should start anew all the spindles of cotton mills in the United States may call for a broader vision, but there is no more of picturesqueness in it than in the demand for a game made in Japan strengthening the market for the bones of a steer, born in Texas, fattened in Iowa, killed in Chicago, whose meat goes cooled or cured, to your table, or canned, to a South African savage.

**READERS** may recall mention in this column of how the sale of Eskimo Pie in the United States increased the exportation of pianos to Ecuador.

**UP IN** Allentown, Pennsylvania, the other day, I heard a Schwab story. Charlie has a large up-to-the-minute farm on the outskirts. The townspeople relish his bluff comradery and say that his favorite joke is to tell each and sundry that if ever they need anything in the way of eggs or butter or anything on the farm, just to go and take it. "I'll let you have it at cost," he adds. His friends laugh heartily. "Charlie's eggs," one of them assured me, "cost him at least one dollar apiece!"

M.T.

**The BOYCE Personal Accounting System****Private!****Personal!**

BOYCE Accounting Experts have perfected this complete, thorough system for your personal accounting. It is so simple anyone can install and use it by the aid of the BOYCE Treatise. It will reveal all of your personal, financial, and income and expense figures in detailed and classified form. It is compact, the complete System being contained in one book cover equipped with lock and key. Federal Income and other tax returns can be quickly and accurately produced from it. Its operation requires but a few minutes per month. Ask for our booklet—"Personal," describing and illustrating it in detail.

**A. E. BOYCE COMPANY**

28 Boyce Bldg., Muncie, Ind.

Originators and Manufacturers of

**STANDARD**  
**BOYCE**  
**SYSTEMS**

Standardized Accounting Systems Designed Specifically for every line of Business

**USE HALCO SUPPLIES**

**STENCILS AND INKS** for use on Mimeograph, Underwood, Rotopress and Neotype.  
**RIBBONS AND INKS** for use on Multigraph, Addressograph, Typewriter, Elliott, Multicolor and Belknap.  
**MACHINES AND INKS** for re-inking ribbons. We also conduct a department to re-ink Multigraph and other large ribbons.  
**HALCO QUALITY SUPPLIES** are used by thousands of concerns because they combine the utmost in quality with reasonable prices.

Let us know your requirements when sending for our latest price list

**THE SHALLCROSS COMPANY**

1455 Grays Ferry Road Philadelphia Pa.

BRANCH OFFICES: 51 E. 42nd St., New York; 128 N. LaSalle St., Chicago; 235 Montgomery Street, San Francisco.

**Starting a Company?**

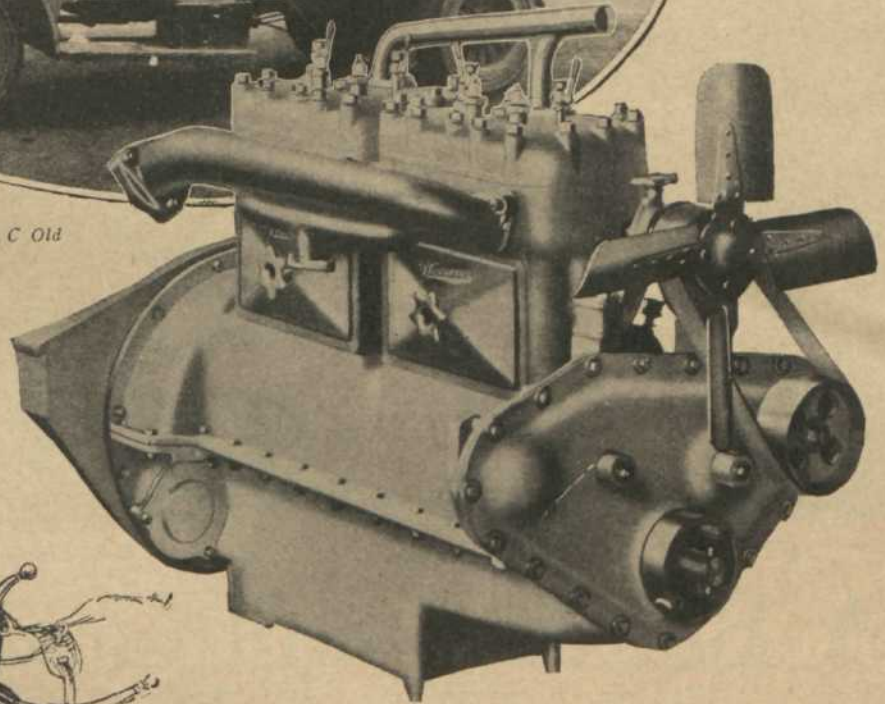
Save expenses and taxes by organizing on the popular, COMMON LAW plan under a pure DECLARATION OF TRUST. No experience required to fill in DEMAREE STANDARD FORMS, issue shares and begin doing business at once. Genuine DEMAREE FORMS are nationally known, approved by attorneys and utilized by successful concerns throughout the United States. Send for large, free pamphlet (D-14) containing valuable information that you may need. C. S. DEMAREE, legal blank publisher, 708 Walnut, Kansas City, Mo.

**MAIN and COMPANY**  
**Accountants and Auditors**

PITTSBURGH HARRISBURG  
NEW YORK PHILADELPHIA



*Wisconsin Motor Model VAU in model C Old  
Reliable Truck*



*Offices in New York,  
Cleveland, Chicago,  
Los Angeles, Seattle*

## Horse Power That Pulls the Load

Look at this Wisconsin motor. Every line of it spells horse power.

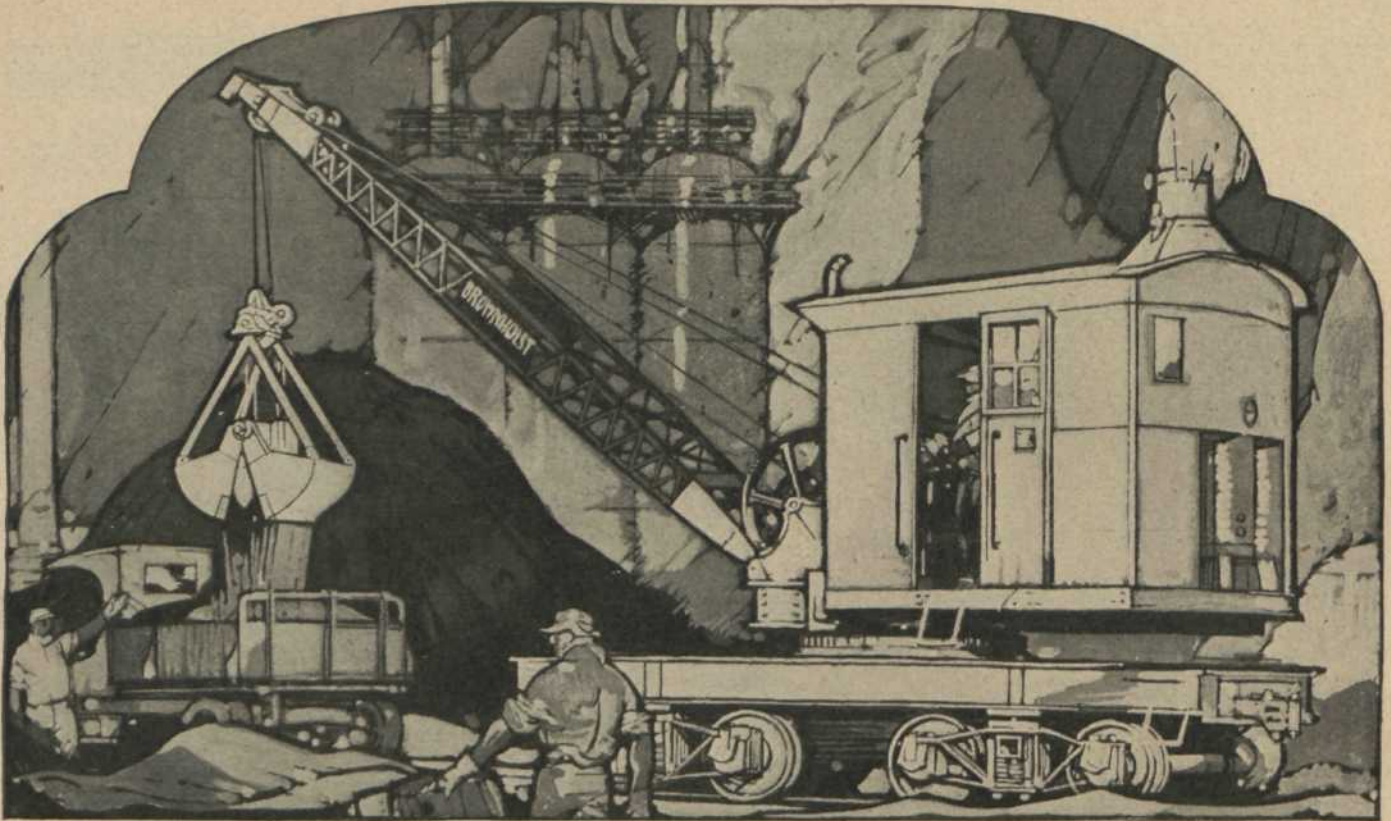
Not horse power measured in terms of flesh and blood alone—but horse power of unlimited endurance—that will not falter at the steepest grade or the worst road conditions—that performs with machinelike regularity.

The motor shown above is the Wisconsin Heavy Duty. Model VAU a 4 cylinder—4½" bore by 6" stroke.

Splendid workmanship on tested materials assures its standing up to the toughest job. Scientific design assures economy in operation and maintenance. Modern manufacture keeps down the cost. There's a Wisconsin model for your work—truck, tractor, passenger car, industrial or marine. Ask us.

**WISCONSIN MOTOR MFG. CO.**  
MILWAUKEE WISCONSIN

**Wisconsin**  
CONSISTENT



*Brownhoist No. 2 Crane mounted on 8-wheel trucks*

## A Better Small Crane Because It Has 8-Wheel Trucks

Hundreds of industrial plants and railroad yards can materially cut their handling costs with this new No. 2 Eight-Wheel Brownhoist Crane.

### Brownhoist Products

*Heavy Dock Machinery  
Locomotive Cranes  
Monorail Trolleys  
Concrete Bunkers  
Chain Conveyors  
Belt Conveyors  
Coal Crushers  
Bridge Cranes  
Buckets, etc.*

The benefits which come from eight wheel truck construction are generally available only in larger capacity cranes. Eight wheel trucks provide greater switching efficiency, easier handling on curves, more stability and reduce track wear.

To those crane users who do not require vast handling capacity, this small crane offers all the advantages of larger equipment and—at considerably lower cost.

The Brown Hoisting Machinery Co., *Cleveland, O.*  
Branch Offices: New York, Chicago, Pittsburgh, San Francisco, New Orleans

# BROWNHOIST

M A T E R I A L   H A N D L I N G   E Q U I P M E N T

# THE NATION'S BUSINESS

A Magazine for Business Men

VOLUME 11, NUMBER 2

FEBRUARY, 1923

## Reparations—and Business

By JULIUS H. BARNES

**R**EPARATIONS" has become a household word in the last few months everywhere in the world. The term has acquired a very wide significance and now includes suggestions of stabilization of currencies, international trade, and foreign exchanges. Moreover, it has acquired a moral symbolism; the obligation to right great wrongs and the obligation in good faith to attempt to repair great injuries. Throughout the world, "Reparations," and the results which flow from that question, are discussed and understood as never before.

When we think of reparations we think inevitably of France and its devastated regions of invasion. We think of the 1,400,000 Frenchmen killed in defense of their homeland. We think of France's 4,500,000 acres of devastated farm lands, of her 700,000 homesteads abandoned or destroyed, and of the 5,000,000 of her population removed from the areas menaced by invasion, with the vast disorganization of social order which this has entailed. We think of the 2,500 miles of destroyed railway, and of the 5,000 manufacturing establishments wrecked and ruined.

Surely, if ever a country had a right to plead for just and adequate restitution France has that right, and this we must not forget.

But the problem is not so simple as to be one-sided. If the misled German people, admitting their liability for unforgettable aggression, are ready, today, in good faith, to attempt to repair in contribution the damage and waste done by their armies, and to the fullest extent of their ability to earn and pay, then the question is no longer one of moral right or wrong but becomes one of economic and business wisdom.

In that aspect, and since on its solution rests the recovery of world processes translated into human opportunity and human happiness, it becomes a question of wider import than concerns France and Germany alone.

If, on the part of Germany, reparations has become a symbol of a repentant people anxious in good faith to repair to their utmost ability damage to a neighboring people, and if at the same time, resting on sincere repentance and good faith by Germany, France abandons the motive of revenge and looks forward, highly consecrated, to the future of its very memories of heroic sacrifice, then with both France and Ger-

many the problem becomes one of practical economies.

France has a right to require the utmost payments in restitution.

France has a right to require securities that those payments will be forthcoming.

France naturally desires, before disarming, some assurance against future aggression and unprovoked attack.

**A**merican business men have come to realize that reparations typifies the cornerstone on which can be re-erected the economic stability of the world, and that in that stability rests the industrial activity which affords employment and earnings and therefore human happiness and content on a vast scale.

It is realized that an intensive effort through the processes of trade will be required to fill the vacuum in Europe of articles for human use, a vacuum created by the destruction of war and the disorganization of imperfectly established peace.

The Chamber of Commerce of the United States, representing American business, has been giving the closest attention to the reparations situation. The extent of the interest which it has taken in the subject is shown in an exchange of cables with German business interests, in which the National Chamber is asked to take steps to express an American business opinion on Germany's ability to pay and to give its recommendation as to methods of payment.

In the accompanying article, Julius H. Barnes, president of the National Chamber, gives an American business viewpoint on the reparation question.—THE EDITOR.

France must feel this assurance in some form, material or moral, so clear that military preparation and its burdens on her people shall be lightened.

France has a right to have her own obligations to America and to England surveyed in the light of the probable future capacity of France to discharge and also as one of the products of a great joint effort in repelling world aggression.

So also, the German people, when sincerely repentant and sincerely desirous in good faith of repairing injuries done, have a right to ask the adjustment of their burden of restitution to the earning capacity of their people and within such reasonable time as holds out the incentive for final clearance of a people by devoted and intensive effort.

So also, Germany has a right, when adequate guarantees and assurances are furnished, that the first charge on the productive earning margin of her people be relaxed by a lightening of the occupation costs, now reaching \$400,000,000 annually.

So also, the great world outside, which in the 300,000,000 of consumers in Europe finds the most intensive and most valued market for its products, has a right to ask a settlement of these questions which shall lead to economic stability.

People will labor to save by thrift and self-denial, but not when such savings are reduced or destroyed by daily depreciation in the value of those recorded savings.

Industry will function under any trials, but only haltingly and ineffectively if, to the normal risks of production and manufacturing and distribution, is also added the hazard of fluctuating currencies that destroy security and threaten solvency.

Currencies, the basis of all industry and of recorded savings, cannot be stabilized either in the face of payment demands beyond the possible capacity of the people to meet nor in the face of the unbalanced budgets which military burdens so largely create.

Therefore, since, after all, it is the economic aspects of these questions which must be logically and soundly solved, they are properly the study of business experience and ability everywhere. These questions are not beyond solution if reduced to their economic aspects without political or other bias. There is a great and growing conviction that they are solvable; that on their solution depends the immediate resumption of trade and commerce throughout the world; that on that trade revival rests the happiness and prosperity of individuals everywhere; that on a proper solution depends also that atmosphere of good relations without which peace itself is insecure.

And the demand will grow for submitting these questions to the practical experience and ability suited to their ultimate solution.

### Business Takes a Hand

**T**HE following exchange of cables between the Chamber of Commerce of the United States and the similar national business organization of Germany speak for themselves. They deal with the desire on the part of German business that the United States Chamber name a commission to investigate the reparations question.

BERLIN, December 25, 1922.

JULIUS H. BARNES, President,  
Chamber of Commerce of the United States,  
Washington.

The German Industrie-und Handelstag

states that the failure to agree on definite settlement of reparations within the ability of Germany exercised in good faith to the utmost to pay continues a state of financial and commercial chaos from which not only Germany but the whole world must suffer.

2. That the difference of the views as to what and how Germany can pay in restitution would seem to be susceptible of a solution by independent and impartial business judgment.

3. That Germany greatly desires such an expression of business judgment on her capacity to pay that shall at least clarify her position.

4. The German Industrie-und Handelstag, therefore, as the leading commercial body of Germany, address themselves to the leading commercial body of the United States (The Chamber of Commerce of the United States) and inquire whether that Chamber, in simple justice to Germany, and for whatever basis it may later provide as a possible settlement of this question which lies at the root of all financial and commercial disorder in Europe, will appoint a commission of outstanding character, ability, and impartiality, to express thus an American opinion on this question.

5. As the German Industrie-und Handelstag only desire a completely fair expression, they agree in advance to the propriety of the principle to be accepted and exercised by Germany in good faith, that the amount and methods suggested shall be a recognition that Germany shall make restitution to the utmost of its

ability, without involving the destruction of its earning and producing power, and holding forth some reasonable expectation of an ultimate settlement of the obligation.

6. The German Industrie-und Handelstag maintain that the currency instability has been the necessary result of reparations and other demands beyond its capacity to meet, and extend assurance that if this expression leads to a settlement of the reparations and other burdens within the definition of the principle laid down, Germany intends to immediately thereafter take steps to stabilize its currency in the interest of financial order at home and the encouragement of foreign commerce.

7. The German Industrie-und Handelstag know that the German Government would be pleased to welcome such a commission and would be ready to open to such a commission all sources of information they might require and the German Industrie-und Handelstag express the hope that, if this is done, the other interested countries would also place their information and views before such a commission.

FRANZ VON MENDELSSOHN, *President.*

WASHINGTON, December 28, 1922.

FRANZ VON MENDELSSOHN, *President,*  
*Deutscher Industrie-und Handelstag,*  
*Berlin, Germany.*

The Chamber of Commerce of the United States is impressed with the solemn responsibility which a compliance with the request in

your communication would lay upon American business leadership. We realize the great forces for good which would follow a definite and practical solution of the reparations question which today destroys the atmosphere of peace in which alone Europe can rebuild its broken processes, and with these thoughts in mind we are giving your request our serious consideration.

We welcome the reaffirmation of the recognition by Germany as expressed by you of the obligation to make restitution to the utmost. Based on this principle, the determination of the amount of reparations and the methods of payment to make effective at the earliest possible moment the restitution to which the allied countries are justly entitled, and not to lighten the rightful obligation of Germany, should be susceptible of determination by honest judgment consecrated to the interest of world peace and free from any political or other bias.

Manifestly such a determination arrived at by mutual agreement and made effective by efforts in good faith is preferable to an expression by any outside body no matter how disinterested and impartial. Therefore, inasmuch as there is a scheduled official conference appointed for January second next for the consideration of this question, we venture to suspend our decision on your request for an American commission in the hope that by common accord a definite settlement will be arranged at that meeting.

JULIUS H. BARNES, *President.*

# Lo! The Poor Middleman!

By L. D. H. WELD

*Being the second of a series of six articles on Distribution*

LAST night I had dinner with a wholesale druggist, and in order to get him started, I said:

"What right do you think you have to be a wholesaler, when so many people are saying that manufacturers ought to cut out the middleman and market their goods direct? Why don't you get into some more useful occupation where you won't simply be engaged in widening the spread between the price the manufacturer gets and the price that the consumer has to pay?"

My friend had not exactly expected such a question and immediately bristled up.

He said that if I had such preconceived notions about the part played by the wholesaler in distribution he doubted if it would be worth while to try to explain the situation. He said the trouble is that lots of people have this same idea about middlemen and that their minds are closed to the other side of the question.

## The Wholesaler at the Bar

"WELL," I said, "you probably read Sydney Anderson's article in the January number of THE NATION'S BUSINESS, and you may have noticed his diagram which shows that nearly 50 per cent of the price paid by the consumers consists of the cost of selling and distribution. It has also been said that during the past half century, while manufacturing costs have been decreasing, distribution costs have been increasing. If the wholesaler is so necessary, I should think there ought to be some way to explain why he continues to stay in business."

My jobber friend replied that of course the cost of distribution must be high as compared with manufacturing cost, because

oftentimes the services performed in getting goods from the factory to the consumer have to be much more complicated and elaborate than the services performed by the manufacturer.

"Consider, for example, the manufacturer of toothpaste," he said. "I don't know how much he has to pay for chalk and soap and other things he puts into toothpaste, nor how much it costs to mix these ingredients together in large quantities and to run it into tubes by machinery; but it seems perfectly reasonable to me that this process would not cost as much as it would to get the toothpaste into the hands of thousands of retailers all over the country, and through them into the hands of consumers—one tube at a time."

"But where does the wholesaler come in?" I asked him. "Why doesn't the manufacturer sell direct to retailers?"

"To answer that question," he said, "I will give you some interesting figures that were compiled by my association a few years ago. We were concerned about the fact that retailers buy in such small quantities, and we decided to make an investigation. We found that out of some 38,000 sales made by wholesale druggists, 74 per cent were in quantities of one-quarter of a dozen or less. For the city trade the percentage of these small orders was even larger. For the country it was smaller."

He went on to say that even for articles selling for 10 cents apiece, only about 35 per cent of the orders from retail druggists were for lots of one dozen or less; 41 per cent were in quantities of one-quarter of a dozen, one-sixth of a dozen, and even one-twelfth of a dozen.

"Has the retailer always bought in such small quantities?" I asked him.

"No," he said; "a great change has come about in the past twenty-five years, and this has tended to increase distribution costs for the wholesaler. We have records that show that in the early nineties less than 50 per cent of the orders were for lots of a quarter of a dozen or less. Now, as I told you, they have increased to about 75 per cent. I might add that these figures apply to proprietary medicines and preparations which form such an important part of the business of both wholesale and retail druggists."

"Why does the retailer buy in smaller quantities?"

"Because he wants to keep his stock at a minimum and to increase his rate of turnover. He lets the nearby wholesaler carry the goods for him, and orders them from day to day as he needs them."

## 1,200 Kinds of Pills!

"YOU can see for yourself," he continued, "what the manufacturer would be up against if he tried to sell the retailer in these small quantities. In the first place, the number of manufacturers of these products has increased enormously. There are more than 3,000 of them now, according to the Census of Manufactures, and the number of proprietary articles has increased from about 5,000 in the eighties to more than 40,000 today. There are over 1,200 different kinds of pills alone!"

"Suppose that each one of the 3,000 manufacturers tried to reach all the retail druggists in the country. Each manufacturer would have to carry stocks of goods at fifty or a hundred convenient localities. He would

have to keep capital tied up in these goods. He would have to have scores of salesmen to reach the myriads of retail druggists. He would have to struggle with collections. You can well realize the amount of waste and duplication that would result if all these manufacturers had to have sales organizations covering the whole country.

"This also ought to give you some idea of the part played by the wholesaler. In the first place, we buy from the manufacturer in case lots. It is a relatively simple matter for him to sell to us, because the number of wholesale druggists is small as compared with the number of retailers, and because we pay him promptly for the goods which we purchase in large quantities.

"When we send out our salesmen to cover the trade they take orders for goods made by hundreds of different manufacturers. In other words, we combine the outputs of all these manufacturers, and instead of having one salesman take orders for only eye-wash or pink pills, he takes orders for all sorts of things. Although you seem to think the cost of distribution is high, consider how much higher it would be if each manufacturer had to sell his own individual output direct to retailers all over the country.

"You must realize that, although I have been talking primarily about my own business, this same thing applies to practically all trades. Of course, there are some cases where goods can be sold direct from manufacturer to retailer, or even to consumer.

#### Some Can Sell Direct

"FOR example, a big clothing manufacturer often sells direct to retailers. He doesn't have to furnish the retailer with a quarter of a dozen suits once or twice a week; he sends out salesmen two or three times a year and books individual orders running into the thousands of dollars, often for a large proportion of the retailer's requirements for the whole season. 'Fill-in' orders for the rest of his requirements come in almost automatically.

"Neither does the clothing manufacturer sell to fifty or a hundred little retailers in the same town. He often sells to only one or two large stores in each locality.

"So you see that selling men's suits is an entirely different proposition from selling drugs, or groceries or hardware.

"The same is true to a certain extent of

shoe manufacturers, although wholesalers play an important part in this field, especially in reaching the thousands of little retailers.

"Still other goods, like adding machines and typewriters, are sold direct to consumers. These are 'specialties,' where an individual sale brings in a good many dollars and where experts are necessary to demonstrate the superior qualities and methods of operation of the articles sold.

#### Warehousing and Financing

"IT is hard to understand the place occupied by the wholesaler without realizing something about the various services that have to be performed in getting goods from purchaser to consumer. For example, in the first place, the wholesaler has to assemble commodities from various sources, not only in this country but in foreign countries. Then, since goods have to be kept on hand in convenient places, in order to furnish retailers from week to week and from day to day, storage facilities have to be provided. That's why all wholesalers have to have warehouses. Some wholesalers who cover wide territories have to have branch warehouses in order to supply retailers promptly.

"Another necessary service connected with marketing is the tying up of vast sums of money while goods are passing through the distributing process. Most manufacturers have to be paid promptly, because they need the money for purchasing raw materials and paying labor. Labor, especially, has to be paid from week to week.

"On the other hand, retailers cannot pay their bills until their stocks are sold and until they have collected from consumers. The wholesaler, therefore, gives the retailer credit. In other words, the wholesaler is a banker, furnishing the manufacturer with funds and waiting for retailers to pay.

"Then there is the risk involved in marketing. In the handling of some commodities this is very great. Many wholesale grocers, for example, lost a lot of money during 1920 and 1921 because the price of sugar dropped tremendously. On many advertised articles, which move rapidly, the risk is not very great, but there are many commodities which fluctuate in price, and when the wholesaler buys them he never knows whether he will get a profit or a loss. This is especially true in the case of perishable products, where not only the price may fluctuate but where the goods may spoil before they can be sold.

"Then comes the question of grading and sorting. Farm products come to market in the greatest assortment of sizes and qualities, degrees of ripeness, etc. They have to be sorted and graded before they are ready for consumers.

"Manufactured goods are uniform in quality, but the wholesaler has to break large quantities up into small lots. A single

order from a retailer may include forty different items, in lots ranging from one article to a dozen. Case goods have to be broken up and these individual orders sorted out, checked up, re-wrapped and re-packed. All this costs money.

"In getting goods from producer to consumer, they also have to be transported. They are carried by railroads over long distances, and by wagons and trucks over short distances. Wholesalers have to deliver to retailers, and retailers to consumers. This is unavoidable expense, except so far as consumers can afford time from their family and social duties to go to market themselves.

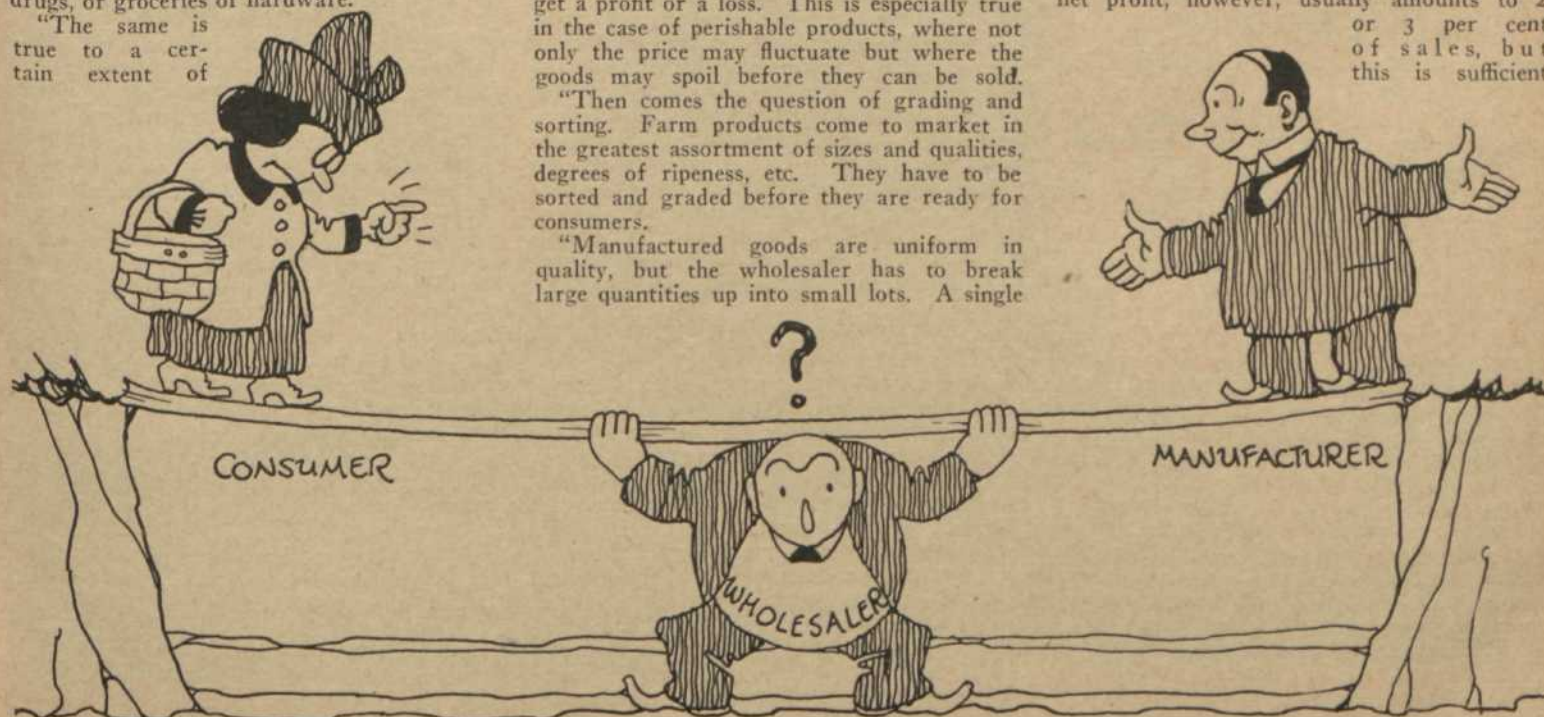
"Then, finally, goods do not sell themselves. There are cases where they can be sold by catalogs sent through the mail, and there are retail stores where consumers help themselves; but the great bulk of commodities has to be sold through personal contact by salesmen. This is especially true of wholesale houses, which have to send out traveling salesmen to find out what retailers need and to take their orders. The salaries and expenses of salespeople are the most important single item in merchandising costs.

"Most people have little idea how much it costs to run a wholesale house. As a matter of fact, it varies in different trades, and distribution costs have increased somewhat during the past two or three years because it has been impossible to bring down wages, salaries, and other expenses in proportion to the drop in prices and falling off in business.

#### Selling Costs, Too, Are Up

"SELLING expenses are ordinarily expressed as a percentage of sales. Among the important trades, wholesale grocers have the lowest expense. It has been running around 9 or 10 per cent of sales. Before the war, wholesale druggists were doing business for about 12 per cent on the average; recently the expense has jumped to about 14 per cent. Wholesale hardware dealers have an expense around 18 per cent of sales and the selling expense of wholesale jewelers runs between 20 and 25 per cent.

"The total difference between purchase price and selling price must, of course, be greater than these percentages indicate if wholesalers are to obtain any net profit. This net profit, however, usually amounts to 2 or 3 per cent of sales, but this is sufficient



to bring a fair return on capital invested.

"One might think that large wholesale houses would have a smaller operating cost than small wholesalers, but this does not seem to be the case. It is probably true that of two wholesale houses covering the same territory, carrying the same line of goods, and giving the same quality of service, the one doing the larger business will have the lower expense. But the wholesale house, if it wishes to increase its sales, usually has to cover a wider territory, and this means that salesmen have to be sent farther afield and that they have greater difficulty in getting orders in competition with wholesalers located in the territory reached.

"Furthermore, as a wholesale house grows in size the proprietor cannot give personal attention to all details of the business, and he has to reorganize it into departments. This means the development of a system of supervision and an increase in overhead expense. On the other hand, a large wholesale house has some advantage in buying in large quantities, and it can usually afford to carry a greater variety of products, including a line of quality products, often branding them with its own name.

"In considering this whole question of distribution, the fundamental thing to bear in mind is that there are certain indispensable

services that have to be performed. If a manufacturer decides to cut out the wholesaler and sell direct to retailers, he has eliminated a middleman, but he has not eliminated the services that the wholesaler performed. Such a manufacturer would have to carry stocks; he would have to keep money tied up in goods; he would have to run the merchandising risk; he would have to split goods up into minute quantities; he would have to send out hundreds of salesmen, where now he uses fifteen or twenty—or none at all.

"Only under certain conditions, such as when he does an enormous volume of business, or when he needs to reach only a few retailers, or when he has a product that requires expert attention all the way through to the consumer, can he save any money by doing all these things himself. Neither wholesalers nor retailers make any claim to superior efficiency, but they know that they are performing services that somebody has to perform, and that they can perform them more economically by combining the outputs of hundreds of thousands of producers than these producers could perform them themselves if they tried to carry their goods direct to consumers."

EDITOR'S NOTE: Here's the second of a series on Distribution which was begun last

month with an article by Sydney Anderson. Others to follow are:

*March: What the Better Half Thinks.* Mrs. Alice Ames Winter, of Minneapolis, President of the General Federation of Women's Clubs, who was a member of the Advisory Council of President Harding's Conference for the Limitation of Arms, will discuss the problem from the standpoint of the consumer.

*April: The Parcel Room of Business.* P. L. Gerhardt, Vice-President Bush Terminal Company, will deal with warehousing and its place in distribution costs and economies.

*May: Two Little Pigs Go To Market.* Carl R. Gray, President of the Union Pacific System, will tell of the four ages of transportation and the part that the railroads have played in getting the little pigs to market. He will also discuss cold storage transportation, and other features of land and water transportation.

*June: Alice in Wonderland.* William A. Durgin, of Chicago, who came to Washington to organize Secretary Hoover's Division of Simplified Practices, will cover standardization, complexity of varieties, over-advertising and over-selling.

*July: The High Cost of Convenience.* A. Lincoln Filene, of Boston, will set forth the retailer's economic place in distribution.

# A Shop Congress That Works

By ALBERT SIDNEY GREGG

FOUR YEARS ago the American Maltigraph Company of Cleveland, Ohio, inaugurated a new policy of industrial relations in which all the employees, through their Congress, got an opportunity of expressing themselves in all matters affecting their relationships with the company. The plan has stood the "acid test" of partial employment and reductions in wages, and as time goes on is proving its value to both employees and company. Recently the writer asked Henry C. Osborn, president of the company, as to the outworking of the system of self-government under discussion.

## The Facts Will Set Us Free

"HAS the system stood the test of business depression?"

"It has," he replied with a decisive nod, "and I believe it has become an established part of our factory management. Four years ago I staked everything on a democratic shop organization plus the all-round economic education of our workers. The plan has survived the most exacting strains that could have been imposed upon it. At the outset the first article in my creed was 'give them the facts,' and I still believe in telling our men the whole truth about the business.

"Our system is our own product, made to fit our own particular requirements, but in its fundamentals it resembles many of the systems tried out in other factories. Much of our success is due to the fact that our campaign of education in economics was in operation for more than a year before we said anything about any plan of employee representation. The plan then came as a factor in a campaign to have our men understand what they were doing, and why. Never has it dominated the situation, and we hope it never will. It is simply a method by which the management and the men cooperate intelligently for a common purpose.

"In order to give you a clear understanding of some things that have taken place during the past four years," continued Mr. Osborn, "I'll explain the system briefly. We have a congress of twenty-four members elected by and from the 500 workers in the factory and office. There is a cabinet consisting of the executives of the company, and an arbitration board to act in the event of disagreements.

"Each department has a representative, chosen by the employees, whose duty it is to lay before congress all matters presented to him by the workers of his department. The congress is divided into fourteen committees who deal with every phase of factory management. In the practical working of the system proposals may originate with the workers in a department, and be laid before the congress, which refers it to the appropriate committee. Later congress acts on the report of the committee and passes its findings to the cabinet, for approval or rejection. Or the cabinet may propose something to the congress, which is referred, acted upon, and later passed on down to the men.

## Stands Test of Deflation

"THIS process takes the place of the old system of direct management by which all matters are determined by the general manager and passed out to the men in form of orders. Our men are learning to think with us and reach conclusions which are quite different from being told merely what to do. Committees are at work and at all times gathering data bearing on some phase of management that has been referred to them."

In four years the factory organization has passed through the ordeal of readjustment, including a temporary reduction of the force, operations on a part-time basis, and a cut in pay without affecting the morale. In the same period the factory has been shifted

from a ten-hour to an eight-hour day without curtailing production. Furthermore, this year, in response to a petition duly carried up through the congress, the company gave vacations with full pay to all employees who had been on the pay roll for more than two years.

It is almost unheard of in industry for a company deliberately to invite shop men to help work out problems that are supposed to belong exclusively to the "front office." But that is exactly what has been done by Mr. Osborn and his associates.

## Giving of Facts a Big Hurdle

ONE day a man connected with the paper industry called to see Mr. Osborn about industrial relations. His company was facing a serious difficulty and had sent this man out to get all the information he could from other employers.

"We are in a slump," said the caller, "and the only way we can meet it is to reduce wages. When the depression started we made one cut, and the men stood for it. Then a little later we had to cut again and it was accepted without any trouble, but now we must cut again and we are afraid of what might happen if we do. How would you handle such a situation?"

"Do you keep your men informed about the business?" asked Mr. Osborn.

"Yes, to a certain extent."

"Have you ever made profits that you would be ashamed to reveal to your men or to the public?"

"We have at times, and then we have slumps, and when the slumps come we have to cut wages."

"The way to deal with your men," replied Mr. Osborn, "is to give them all the facts covering a period of years—a cycle in which good business and poor business will be placed side by side on a chart that all can

understand. The chart should show the cash paid out each month for wages, raw material, repayments on loans, dividends, and interest.

"There should also be an exhibit of the cash income from sales and all other sources, all worked out for quick comparison."

Mr. Osborn's caller was very much distressed.

"That sounds like a good plan," he replied, "but I never in the world could sell it to my directors."

He went away sorrowful, for his burden was heavy. Mr. Osborn never heard from him again.

As a basis for intelligent cooperation in his factory Mr. Osborn does two things: He gives systematic instruction in economics—he tells his men how wealth is created and distributed, and then he blue-prints the finances of the Multigraph Company, holding nothing back. The blue-prints are posted in the shop and the office, where all employees can study them.

### Front Office Vision vs. Pay-day Outlook

IT is a remarkable thing to see a group of men in factory clothes standing in front of a chart tracing out the rise or fall of the inventory across the chart, or checking up income against outgo, all of which is given in exact figures month by month. The significance of the inventory is that it is a barometer of business. If it is high, it indicates that sales are slow, and when such a condition persists the company must retrench and possibly borrow money. A low inventory shows that the product is moving and that money is flowing in from sales.

The result of this system is that the men have acquired a "front office" vision, in contrast with the usual "pay day" outlook. They use the same factors in thinking that the directors must employ in handling the business. Each man takes an interest in the operation of all other departments and helps in every way to reduce costs. The spirit of team work is a big item.

Soon after the factory congress was established it became necessary to reduce the hours of work from six days a week, 44½ hours' working time, to five days a week of 40 hours, and cut down the force 20 per cent. Each move was made only after a committee of the congress had gone into the entire matter and concurred with the management in the course taken. In deciding who should go three lists were prepared—one from the production records, one from the general impressions of the foremen, and one by a committee of the congress. This committee met with the management, and from the three lists compiled a list, name by name, of those who should be laid off.

A little later it became necessary to make a further retrenchment. The cabinet gave the congress the facts and the figures pertaining to the relationship between production and sales. A committee of the congress investigated

the inventories of raw, process material and finished stock, which had been piling up, and which made it necessary for the company to borrow. In view of these facts, the committee recommended that in justice to the owners, about the best thing to do was for the company to shut down until the abnormal inventories could be sold. This action was approved by the congress and passed on to the cabinet.

The men were ready to accept a shut-down, but the company offered the alternative of three days a week without change of the hourly rates, with a hope of maintaining an organization. After operating in this way for a while the cabinet proposed to the congress that the company change from a three-day week to full time of 44½ hours, with an average wage reduction of 20 per cent. It had been found from cost figures that the three-day week was uneconomical. The proposed full-time plan was accepted, and a complete reclassification of wages worked out by a committee of congress.

No man likes to have his pay cut, but these men were so thoroughly informed of the conditions making the wage reduction necessary that they accepted the lower rate in a spirit of good will.

Recently, when a big corporation advanced wages 20 per cent, some of the men in the Multigraph Company thought it was time to get a raise. The matter was taken up by a committee of two office men and four shop men, who found that it was no time for a general increase, but who recommended that certain inequalities in pay be corrected. Their suggestions, however, amounted to a blanket raise. It was evident, however, that they had not gone into the matter deeply, so after an exhaustive investigation their original recommendations were cut down four-fifths by the congress and then adopted by the cabinet.

In working out a plan to cut costs so the selling price of certain machines could be reduced, the matter was turned over to the congress, and a committee did the re-vamping.

cut in all directions, which enabled the company to increase the business five or six times and restore the number of employees to normal strength.

When the matter of an eight-hour day came up for consideration the problem was to reduce the time without cutting down production. A committee of the congress as usual made a detailed analysis of the situation. Production methods were studied from every angle. This included sources of supply, production control, machine production, assembly and distribution. This was all worked out by shop men, passed on by congress and then handed over to the cabinet.

### Eight Hours for Ten

THE idea of the men was to prove that they could do as much work in eight hours under the system proposed by them as they were doing in ten hours. Quotas were set, and the plan given a tryout on the basis of nine hours a day without change of the rate of pay. Then the company tried the men on an eight-hour basis. The plan worked so well that the eight-hour day became permanent.

When a new product was marketed, the demand was instant, leaving the factory far behind the selling organization. This was explained to the men, and it was also explained that the close price made would not admit of carrying the usual time and one-half labor charge for overtime necessary to catch up. The men voluntarily agreed to work the extra hours at regular rate per hour in whatever departments might be holding up the product, and to do this for a sufficient length of time to overcome the existing shortage.

A year ago the shop men petitioned for a vacation with pay, but the proposition was rejected. Early in 1922 they asked again and the request was granted. During the summer of 1922 every person who had been with the company for two years got a week's vacation with pay, and all who had been with them more than five years, two weeks with pay.

A chart was drawn up showing the seniority of the men in each department, and those who had been with the company the longest had first choice in the matter of time. The announcement was made that in case anybody needed money for vacation expenses, the company would advance all or part of their pay for the vacation period. About two-thirds of them took advantage of that offer.

The men did not have very high hopes that they would be granted the vacation, but they made a strong fight by showing that it would increase their efficiency and reduce the number of "lay offs" during the year. When Mr. Osborn made the announcement that the vacation had been al-



Henry C. Osborn, president of the American Multigraph Co., who has evolved a plan whereby employees have a hand in the management.

His system is instruction in fundamentals of economics, and second, charts posted in shop showing the men the financial operations.

lowed the shop men and women got a big bass drum and celebrated by marching around the factory building.

It developed afterward that many of the workers had never had a vacation before. It was the first time in sixteen years that one man had been off, and in another instance a man had worked for twenty-five years. A man of sixty who had worked since he was seventeen got his first vacation under this plan. Hundreds of incidents of this kind could be mentioned. One girl was enabled to go to Pittsburgh and visit a brother whom she had not seen for a long time.

"We do not regard this as welfare work," said Mr. Osborn in commenting on what had been done. "It is simply a matter of cooperative management."

"The policy of the management includes promoting and sustaining national and civic ideals and responsibilities. To encourage willing service both on jury duty and as members of National Guard our men receive from the company while on such service an amount which, added to the fee received as juror or member of National Guard, equals his normal daily wage."

"Group life insurance has been carried by the company for the past few years and has demonstrated its worth many times. While it was little understood and not so fully appreciated at first, the attitude changed after one or two cases had been given the immediate relief of the insurance check, where otherwise suffering and want would have been inevitable."

"What was the severest test of your system?"

"Wage reduction, I should say," Mr. Osborn replied, "but at the very outset we had an experience that was something of a test. It was the first election of the congress; a ballot-box fraud developed. One of the girls accused a foreman and several others of stuffing the ballot box. A demand

was made upon me to do something about it. The only thing I could logically do was to pass the matter back to the newly created congress. I told them if they were going to be self-governing they might as well begin then. So about the first thing they did was to investigate the charges against the foreman. He was found guilty along with another employe, and on the recommendation of the congress that foreman and one girl were discharged. That satisfied everybody that the company was sincere."

#### Enlist Brains as Well as Hands

"HOWEVER, a number of the men were not fully sold on the idea. They agreed to cooperate for a year, but persisted in saying the plan would not work permanently. I think, however, that the vacation plan has satisfied even the most extreme doubters. We believe we have hit upon a plan that is good business, in which we can make both men and multigraphs."

"You have doubtless heard the expression 'hired hands' when speaking of working men. In many cases that is about all they were—hired hands, and they had to be supervised by other men who use their brains. The next step in the evolution of industry is to enlist the brains of men as well as their hands. Last of all we must enlist hearts also. When we reach the point where men will take a real, vital interest in the business we have developed the ideal union of industry."

"The way to do this is to recognize that shop men have heads and hearts and that they can be enlisted in the business. In place of all the thinking being done by men with white collars, we have men in jumpers who are thinking right along with the white-collar fellows. But don't forget that the men in the shops must have the facts that are available to the men in the office. When they get those facts and are encouraged to make deductions from them, they are

sure to develop ideas of value to the business."

"After I had finished my schooling I became an apprentice machinist in a big Cleveland machine shop. There I got the viewpoint of an employe in the shop. It was the angle of the man who does not understand the business, but who feels that he is oppressed by a system which is directed by an invisible boss who does not even think of him as a human being, much less as a being with a mind and heart. We never knew what the business was all about, and no one in authority seemed to care whether we found out or not. This created an inevitable feeling of antagonism toward the company, which made us want to get all that we could for as little effort as possible. The plan we have worked out here clears the atmosphere, and managers and men cooperate in running the business."

"Do you think your system can be applied to any business?" I asked in closing the interview.

"Yes, but careful attention must be given to the preliminary training of the men. There must be mutual confidence and understanding. It sounds like an extreme statement to say that the shop men can be trusted with questions of management, but that statement must be qualified by another one. They must be fully informed and supplied with facts. Anything less than all the facts will engender a spirit of suspicion that will make it practically impossible to operate the system."

"Each factory is a problem by itself because of difference in nationality, size of the shop, and the nature of the product. Furthermore, the development of such a plan is something that cannot be rushed. It takes time. Shop men are not going to be hurried into a thing of that kind headlong, for fear of being trapped. After all, practically everything depends on mutual understanding and confidence."

# Food at 50 Miles an Hour, Costs

Reported by RAYMOND WILLOUGHBY

THE EASTBOUND Broadway Limited was bowling along in the homestretch between Philadelphia and New York. A man entered the dining car and sat down opposite another man engaged in ordering breakfast.

"Fine morning," ventured the new arrival.

"It would be if a fellow didn't have to pay such prices," said the man with the menu card. "Look at the tariff on those eggs, and in the spring too, when the hens are working over time. The railroads surely put a bee on you if you're unlucky enough to get stuck on a train at meal time."

"Why, old man, you speak bitterly! Do you know that the railroads are really losing money on their dining car service? The only thing they get out of the meals is the good will of the passengers, and there's darned little of that sometimes. The roads would save money if they could dispense with their dining cars altogether, but they can't."

"If we should go back to the old system of the trains stopping at meal time to permit passengers to patronize station restaurants, there'd be a near riot. The traveling public is opposed to any slowing down of the schedules. It wants what it wants served when it wants it, and it reserves to itself

the proud American privilege of finding fault with anything and everything at any time, which is eminently right and proper."

"Sir, you speak as one having authority. How do you get that way, may I ask?"

"That's fair enough. Merely because I happen to be connected with the restaurant department of the Pennsylvania."

"Good. Maybe you can show me the light, then. I know good cooks don't lay their secrets on the table for nothing, and that there's many a slip between the kitchen and the lip—the breakage of chinaware and glassware is doubtless larger proportionately than in hotels or restaurants."

"I'll be glad to tell you what I know of the game. My territory is limited to the Pennsylvania lines east of Pittsburgh, and if you don't mind I'll bolster my memory with a few figures," said the dining car man, pulling some papers from a capacious pocket.

"All right. Go ahead."

"Well, we've got to start somewhere. Suppose I begin with the meals. Here we are—in the fiscal year ending September 30, 1922, 2,779,828 meals were served in the dining cars of the Pennsylvania's eastern lines at an average expense of a little more than \$1.43 a meal, and with an average return

of about \$1.16 a meal, leaving an average loss of about 26½ cents a meal."

"Say, that's getting down to tacks. How many of those meals brought any income to the road?"

"Let me see. Of the total number of meals, 2,236,678 were served to passengers, and 543,150 were served free to the dining car crews on their runs."

"By George, that is interesting! Why, on that basis, the loss must have been close to half a million dollars."

"It was close to six hundred thousand dollars, I think. Wait a minute. I've got it here—exactly \$593,870.41."

"You don't say so! I am beginning to see the light. A thing that has always puzzled me is how the roads anticipate the number of dining car patrons. How do they go about that?"

"That's the hardest nut to crack in the whole commissary. The car managers have to put in supplies for capacity business, but the records show that they may be called on to serve from 30 to 180 persons a day. Anything is likely to affect the volume of traffic. There is one classic instance of a dining car that had 35 customers one day and 125 the next, and no one has ever been

able to discover the reason for the increase. But they all got fed—you can rely on the resourcefulness of the crews for that."

"Well, well. I regard that little kitchen with new interest. I had no idea its facilities were so elastic. Does the pressure vary greatly in a single week?"

"Yes, considerably. Between New York and Washington, for example, Monday, Tuesday, and Wednesday are heavy days, particularly if Congress is in session. There is a falling off in business on Thursday. Saturday's business is poor."

"No matter how the dining car manager plans, he must be ever ready for emergencies. A train from the south or the west two hours or more late may greatly reduce the patronage of the train with which it was to have made connection. If it isn't late trains, it may be a great convention or other attraction that puts a strain on the equipment. Of course, there is a physical limitation—there is a maximum number of persons who can be served from the equipment in use at any given time. The Pennsylvania east of Pittsburgh has 75 steel dining cars and 2 steel cafe coaches on its lines. Usually, 72 cars are in service and 5 are in the shops for repairs. The last 40 cars put on by the Pennsylvania cost \$40,000 each. For crockery, glassware, silverware, linen, pantry and kitchen equipment, the average cost per car is about \$2,700."

"It was my impression that dining cars were often pulled out of regular service for long junkets. Is that so?"

"It used to be so when cars cost less. The Shriners had cars allotted to them every year. There were times when dining cars were off the road for thirty days at a stretch, but withdrawals like that are the exception now. Perhaps you know that Marshal Foch had a Pennsylvania diner for forty-seven days when he was touring the States."

"That's all very informative, but getting back to food—and that's about all the passenger has on his mind when he enters a dining car—how do the roads manage that part of the business?"

"I think I can enlighten you on that, too. First, take a look at this itemized list of food consumed by the traveling public on the Pennsylvania's eastern lines," was the restaurant man's answer, as he tossed over a typewritten sheet of paper on which were such figures as these: 250,000 pounds of ribs of beef, 139,900 pounds of butter, 197,900 quarts of milk and 126,590 loaves of bread.

"And," went on the restaurant man, "the food must be of the very best or there will be a howl from the public. For its butter, the Pennsylvania pays 4 or 5 cents above the daily quoted price, and each pound is put into a special paraffin container to prevent absorption of unpleasant odors. All eggs are recandled. To serve a bad egg would be a mighty bad business. The Pennsylvania restaurant department asserts that it has never had a complaint about the eggs served in its dining cars."

"The great standbys of the dining car service are butter, eggs, and coffee—if they are good, everything is all right. Oh, yes; there's another mighty important require-

ment—the soup must be piping hot! Then, too, food supply stations must be placed at strategic points along the route. For its lines east of Pittsburgh the Pennsylvania has six. They are located at Sunnyside, L. I.; Baltimore, Harrisburg, Pittsburgh, Altoona, and Philadelphia."

"I could readily see the need for business methods in operations so extensive, but I didn't know the roads were so thorough and

brother for doing justice to good food when it is plentiful and 'free, gratis, for nothing.'"

"You have straightened me out on the provisions and the personnel, but there must be an 'overhead' somewhere. What goes into it?"

"A very great number of items outside of food go into the cost of the meal."

"Of course. I knew that, but while you have been sitting there giving me inside information, I have been trying to digest your figures with my meal. That '\$1.43' is a rather tough morsel. I can't seem to get it down. Can you break it up for me?"

"I'll try. Look at this statement of operations covering the period from October, 1921, to September 30, 1922. It shows just what went into that average cost of \$1.43 a meal. As you would naturally expect, provisions are represented by the largest amount in that total of \$1.43, with 63.9 cents. Next in order of magnitude, as you see, comes pay rolls with 49.5 cents. The maintenance of equipment, kitchenware, silverware and the like comes next with 9 cents. Fuels and ice stand fourth with 5.8 cents. Laundry is a close fifth with 4.7 cents, and to the room rent of the stewards and crews must be apportioned 2.7 cents."

"Those items give us a total of \$1.36 out of the entire \$1.43, leaving a remainder of 7 cents to be distributed among a great many other items such as stationery, printing, office rent, cleaning, lighting, uniforms, garbage removal, and insurance."

"But where's that breakage cost?"

"Right there under the maintenance of equipment. See it? Approximately 8.5 cents charged to equipment condemned and renewed—almost the whole of the maintenance charge. You were right in your surmise that the breakage bill is out of all proportion to the size of the establishment."

"And gaze on the totals for the entire number of meals. They certainly run into big money, don't they!—\$1,429,190 for food; \$1,108,376 for pay rolls; \$201,220 for equipment maintenance; \$130,876 for fuels and ice; \$106,238 for laundry—a total of \$2,975,900 for those five items out of the entire operating expense of \$3,200,639. That laundry charge is significant; it goes to show that Americans are pretty exacting in regard to table linen."

"Well, as I told you in the very beginning—the whole operation is conducted at a loss. The railroad merely seeks to develop the intangible asset of good will. That, from an economic viewpoint, is the only justification for the dining car. A railroad commands or loses passenger traffic to some degree—to what degree no one can determine—by its dining cars."

"Well, I've got to look after my baggage. Thanks for a mighty interesting talk. I've robbed you of your meal. I'm afraid, by my curiosity."

"Oh, that's all right—it's just a part of my job to give the public what it wants when it wants it. I'll roll on into the terminal with the diner."

"Good-bye."

"S'long."

**H**ERE'S a list of what dining cars on the Pennsylvania System east of Pittsburgh use in one year. It's part of what one railroad system consumes:

Ribs of beef .....	250,000 pounds
Short loins for steak .....	203,000 pounds
Racks of lamb for chops .....	109,700 pounds
Ham .....	114,500 pounds
All other meats .....	226,600 pounds
Chicken .....	208,000 pounds
Potatoes .....	917,000 pounds
Butter .....	139,900 pounds
Coffee .....	99,500 pounds
Cream .....	142,900 quarts
Milk .....	197,900 quarts
Sugar .....	190,200 pounds
Eggs .....	138,800 dozen
Grape fruit .....	83,600
Oranges .....	154,400
Baking apples .....	100,700
Ice cream .....	51,700 quarts
Rolls .....	3,600,000
Bread .....	126,590 loaves

If you care to multiply the totals by 16, you'll come pretty near the total food consumption on all the dining cars in the United States for a year. And these figures do not take into consideration the railroad eating houses.

painstaking in handling the food supplies. That's half the battle, but organizing the crews and training the waiters must keep someone awake nights. How about it?"

"You just bet it does. The motto of the able dining car manager is 'Take the best possible care of the passenger,' and early and late he labors to drill that text into his crew. Every waiter has to go through a course of training. Each new man is sent out for two or three weeks under the supervision of an expert. By the end of that time, if he is the right sort, he probably will be proficient. Waiters get \$55 a month. They have sleeping quarters and meals free. The company provides uniforms and linen. I do not know how to figure their tips, but they surely pick up considerable money from that source."

"Usually, the managers can get waiters who have had experience elsewhere. The waiters are regularly examined as to their physical condition. Their living quarters are scrutinized, too. Some of the waiters have been in the service a long time—a considerable number for as long as thirty years, and one has a record of thirty-eight years with the Pennsylvania. Most of the stewards have been in restaurants or hotels. The steward can make or mar the dining car. He is the boss. The crew always reflects the steward. The crews make an annual average of \$1,300 in wages."

"A 30-seat car usually has a crew of 10 men—a steward, 4 cooks and 5 waiters; a 36-seat car has 11 persons, while on some of the very heavy runs a pantry man and a bus boy are added. From the best information obtainable, the crews fully live up to the reputation established by the colored

# Germans Sell, but Don't Deliver

By CHARLES LYON CHANDLER

Manager, Foreign Trade Department, Corn Exchange National Bank of Philadelphia

**H**ERR DEUTSCHER, of Buenos Aires (with agencies in Montevideo, Rosario and other South American cities) sits in his large Vienna chair and breathes a deep sigh of contentment, for he has had a most satisfactory afternoon.

High government officials placed in his hands elaborate documents, duly signed, stamped and sealed, for fifty narrow-gauge locomotives. Why, the North Americans know nothing whatever about it, despite their large-staffed offices in Buenos Aires. The trade of these pushing Yankees is like a fleeting shadow—easy come, easy go. Well, if they want to waste money, let them do it.

Little does Herr Deutscher know that within ten minutes after he left the polite Dr. Fulano's office, that able official was engaged in an animated telephone conversation with two energetic factory representatives whose office was nearby.

"Come along, Alfred," said Wallace, "His Excellency wants twenty-five more as a starter; let's go over and see what we can do."

An hour later cables were on their way for twenty-five of exactly the same type of locomotives that had so gladdened the heart of Herr Deutscher. "Wait and see, Your Excellency," Wallace said. "It is now May, I guarantee the locomotives will be here by August 15."

On August 7 an excited subordinate rushes into Dr. Fulano's office.

"Your Excellency, Your Excellency, Your Excellency! The North American locomotives are here!"

"Here? Where?" exclaimed the astonished Cabinet Minister. "Surely not in Buenos Aires."

"But they are here, and await your Excellency's inspection."

"Say nothing to Herr Deutscher," murmurs Dr. Fulano. "We must not hurt his feelings. Patience may be a virtue, but I really need those locomotives. Let me invite Don Wallace to luncheon. Less than two months and a half—I don't think there's much of this Yankee bluff that some people tell us about."

It was a happy Wallace that lunched with His Excellency that day. "But how did you do it, Don Wallace? And those are perfect locomotives, and you say you built them close to the

Delaware River so they could come here faster."

With twenty years' foreign sales experience behind him, the enthusiastic Wallace left His Excellency far better acquainted than before with United States efficiency... with pleasant intimations that yet further orders might be inclined to the banks of the Delaware.

And Herr Deutscher? Up to the time that this issue of *THE NATION'S BUSINESS* goes to press, his darlings have not arrived.

"They existed not—except on paper," dryly remarks Don Fulano's chief clerk, as he files the fourth consecutive letter of excuse and apology from the German House. "By the way, what good Spanish Don Wallace and Don Alfredo speak. That's the way to sell us locomotives."

This story, with many similar ones, was told the writer two months ago under the Southern Cross.

"The Germans have thoroughly sold their unreliability to these people," said one man in the machinery export business. "Order after order from them has never been delivered. Electric lights made in Germany blew out at the big Independence Day celebrations they had here last week. See that General Electric man over there with a smile on his face? That did him more good than any amount of advertising here ever could have done."

A young Cornelian who served two years' apprenticeship in the Buenos Aires cotton goods importing trade, and who knows personally each and every customer from Barranquilla to Punta Arenas, has been good enough to write me his impressions along these lines. Incidentally, he has a corps of young American college graduates in his own offices in six sister republics, rather a different state of affairs from the days when the United States sold \$750 worth of hosiery annually to Argentina.

"We have heard a great deal about German competition in hosiery, rather chiefly, the threat of German competition. For instance, the statement has been made to us from Colombia that when German hosiery is offered there we won't sell any American stockings, yet our factory (one of the largest in Illinois) continues selling

them in fair quantities in Colombia. It is true that some German hosiery is going to South America, but we know that many customers have had orders pending with German manufacturers, and since no goods were delivered there had to turn to the United States for their stocks.

Three striking instances have just been reported by a veteran United States foreign trader who is now established in the import business in Mexico City. Although a large hardware store there, of decided German affiliations, had received samples of the most glittering and enticing German wrenches, no sales were being made, since even the Germans in that hardware firm had to admit that the German factories simply could not deliver after the orders had been placed. So the United States still wrenches supreme in the land of Montezuma.

A brewery at San Luis Potosi was offered a large amount of glass bottles from Germany for 20 cents a gross less than those from the United States, but the Germans could not deliver to that brewery. The poor Mexican wrung his hands, until a man from Chattanooga delivered Tennessee bottles. So now the good citizens of our sister republic can quench the thirst brought on by their hard-earned chili con carne and tortillas.

Machine tools, drills, lathes and similar things from Remscheid and Leipzig look very pretty in the catalogs, but when can they materialize. Of course, Hindenburg won the war, Herr Deutscher firmly believes. But do his customers?

Over two years ago a large order for rolled steel wheels was placed in Germany by certain Argentina railways. The order is said to have been passed from one German firm to another to keep the home furnaces burning, but not a single wheel has yet reached the banks of the River Plate.

We must always remember that we are no novices in foreign trade. Wheelwright, Harrah and Thorndike were building railways in South America, and Whistler in Russia, long before many readers of this article were born, and nothing better can be said of those who have followed them than that they have kept the faith just as well with the 85-ton locomotive of today, as with the 25-ton wood-burner that Matthias Baldwin sent to Chile in 1851.





# MANAGEMENT.

By BERTON BRALEY

## Brains!

Cause of our progress and source of our gains;  
Helping the forces of nature to shape  
Man—from the clay of the anthropoid ape.  
Brains—that from misty beginnings of time  
Lived as the spirit that quickens the clod,  
Lifting us evermore out of the slime  
Further from animal, nearer to God.

## Brains!

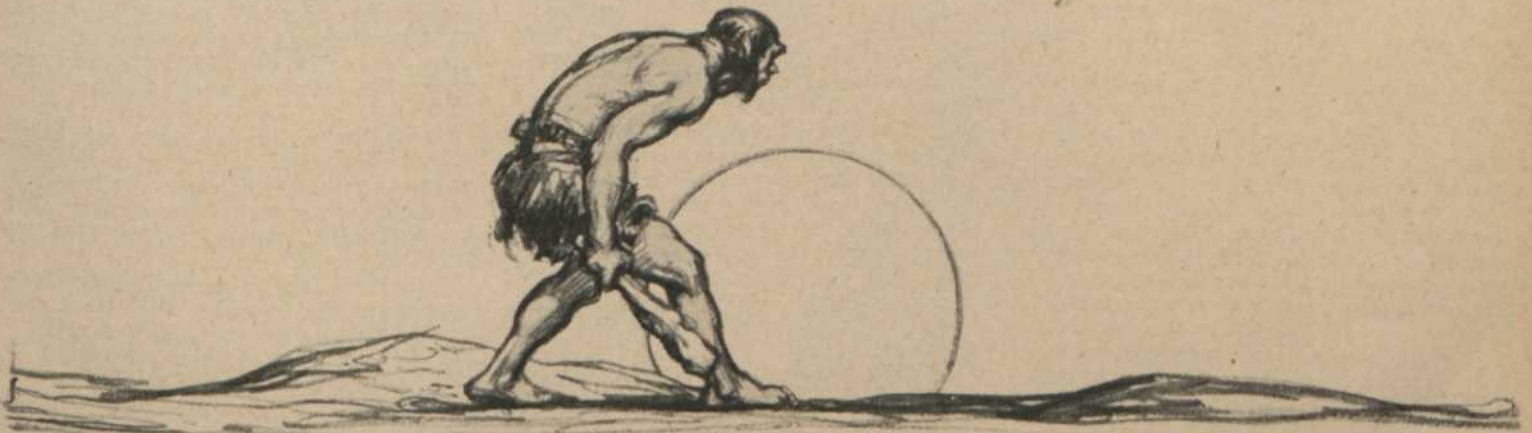
Framer of destinies, breaker of chains;  
Brains that have ceaselessly fashioned and  
wrought  
Miracles vaster than alchemists sought,  
Leading men onward and making them free.  
Hitching realities fast to a star;  
Patiently sculpturing What Ought To Be,  
Out of the granite of Things As They Are!

## Brains!

Conquering mountains and oceans and plains,  
Fount of the dreams that go ever before  
Deserts that blossom and cities that roar;  
Brains that have dauntlessly battled with Fate  
Taming her fury, however she strove,  
Making of Man a colossus elate,  
Armed with the mightiest thunders of Jove!

## Brains!

Wealth that endures when all other wealth  
waned;  
Touchstone of fortune in which men may trust  
When all material treasures are dust,  
Brains that have moulded us out of the brute  
Taught us that beauty and joy are on earth,  
Who will evaluate them? Who will compute  
Just what a thing that is priceless is worth?



# The Hidden Tax in Your Premium

By WILLIAM PICKETT HELM

WHEN John White died he left his entire estate to his widow. He named as executor his best friend, Bill Black. Bill paid all claims against the estate and called in his old friend's cook.

"Cook," he said, "you served old John for many years. You fed him well. He's dead now, as you know, and he left you nothing. I think he ought to have remembered you. Take this thousand dollars from the estate."

Bill then sent for the grocer, the butcher, the baker and the milkman.

"Gentlemen," he told them, "you all served my old friend. For that service, of course, he paid you, but he clear forgot you in his will. As executor, however, I think you're entitled to something. Here; take this money."

Then Bill got around to the general public. He sought out the policeman, the letter-carrier, the trolley conductor, the elevator man at John's office building, and so on down the line. To each man who had contributed to John's happiness or comfort, Bill made a small present on behalf of the estate.

Then he went to the widow.

"Mrs. White," he said, "here's what is left of your husband's estate. It isn't all, but it's nearly all. What isn't here I have distributed among the various people who served John in his life-time—people he forgot to remember in his will."

And very properly Bill was sent to jail.

A hypothetical case, truly, but with a parallel in the realm of insurance in actual life today. Substitute for Bill Black the name of a sovereign state—any state—and in place of John White's estate consider the money that John White pays for insurance—any insurance—during his life, and we find the same generous distribution of his funds.

In other words, when we come to look into what happens to the insurance premiums which the American people are paying today, we find that a part of the premiums, variously estimated at from \$60,000,000 annually and up, is being distributed among the cook, the grocer, the butcher, the baker and the general public. All worthy men, but none with any conceivable lien on the individual or collective insurance premiums of the country.

Distribution of these millions is made by the various states. The money is collected by special taxation—taxation of the policy-holders which has nothing to do with the other kinds of taxation paid by the insurance business in common with all other forms of business. If the business man in other lines of endeavor paid the same taxes, there would be nothing unusual about the case whatever. But he doesn't; they apply only to the policy-holders of the United States and in that respect they are unusual and inequitable. In the aggregate, they form a heavy burden of invisible taxation—invisible because they are collected indirectly and thus are not seen

by the man who pays them—laid at the very door of thrift.

The states collect these special taxes on policy-holders for one ostensible purpose, namely, to provide funds for the maintenance of state departments of insurance. The function of the departments is to safeguard the rights and interests of the policy-holders, a duty with which neither the in-

lumbia, "collected \$207,000 from licenses and taxes paid by the companies and their representatives in the District of Columbia for which they and their policy-holders are supposed to receive some service.

"The actual expenses of the department were \$13,258.77."

Thus for service costing \$13,258, the policy-holders of the District of Columbia paid \$207,000. The difference, \$193,742, went into the general treasury, to which the policy-holders had already contributed on the same basis as other citizens, and was expended for general purposes.

And for 1923 the District plans to raise \$255,000, an increase of \$48,000 which, of course, the policy-holders will pay. An insurance code looking to this end has already been introduced.

Had this excess tax for 1922 been invested at 6 per cent interest, the interest alone would have been almost enough to maintain the department, free of all special taxation on policy-holders for all time to come. In that event, the policy-holders' tax would be for subsequent years less than one one-hundredth part of what it was last year.

Had this excess \$193,742 been used for buying life insurance, it would have paid the premiums on 1,000 policies for \$10,000 each, whole life at 32 years of age.

Had it been used to purchase fire insurance, at the average rate of 96 cents per \$100, it would have paid the premium on \$20,000,000 of fire insurance.

But it was used for none of those things. It helped to pay for street building, police protection, teachers' salaries, office equipment for the District government, street cleaning and the other manifold activities of municipal government, none of which appears to be so closely linked with insurance as to warrant a special tax on policy-holders.

The District of Columbia is no exception to the general practice and is cited merely as a handy illustration. Every state levies these special taxes on the policy-holder, but in some states the excess tax collected over the cost of maintaining the insurance department is much greater than in others. Pennsylvania, for instance, collected in one year \$2,735,000 through special taxes on policy-holders and spent only \$89,620 in safeguarding their interests—about one-thirtieth of the tax.

Florida levied special taxes on policy-holders which yielded in one year \$244,500, but in safeguarding the rights of those same policy-holders she spent, through her insurance department, only \$4,717, less than one-fiftieth of the tax.

Texas in the last Insurance Commissioner's report states the insurance department costs less than \$25,000 and turns into the general funds of the state approximately \$2,000,000.

The volume of the special taxes is increasing rapidly. It is more than twice as great now as it was five or six years ago. As state

## For Policy-holders Only

WHEN you sit down and write "Pay to the order of the Collector of Internal Revenue," it hurts. It's an operation without ether. When you pay your \$100 life insurance premium and the insurance company turns over a dollar or two or three to the state it doesn't hurt, but you've paid, and moreover you've paid where your neighbor hasn't paid because he isn't looking so far ahead.

That's one reason for this article, to make clear to the policyholder, and that means nearly every man, the objection *not* to taxing insurance companies, but to taxing premiums. It's the uneven, invisible tax, and right there, in its invisibility, is one of the reasons for its popularity with legislators.

If you got from the state some day a letter saying "you paid last year in premiums for fire, life, casualty insurance, \$700. Send us \$35 as the tax," you'd begin to ask questions.

There's another point. It's an expensive tax to handle. The government pays a little over a cent to collect a dollar of taxation. The insurance companies say that it costs them from 17 to 20 cents to collect a dollar of tax. Which may be a reflection on insurance companies or may simply mean that they're not devised to collect taxes. But as we said, this article isn't meant for insurance companies, it's meant for policyholders, to let them know what present (and possible) taxes mean to them.

THE EDITOR.

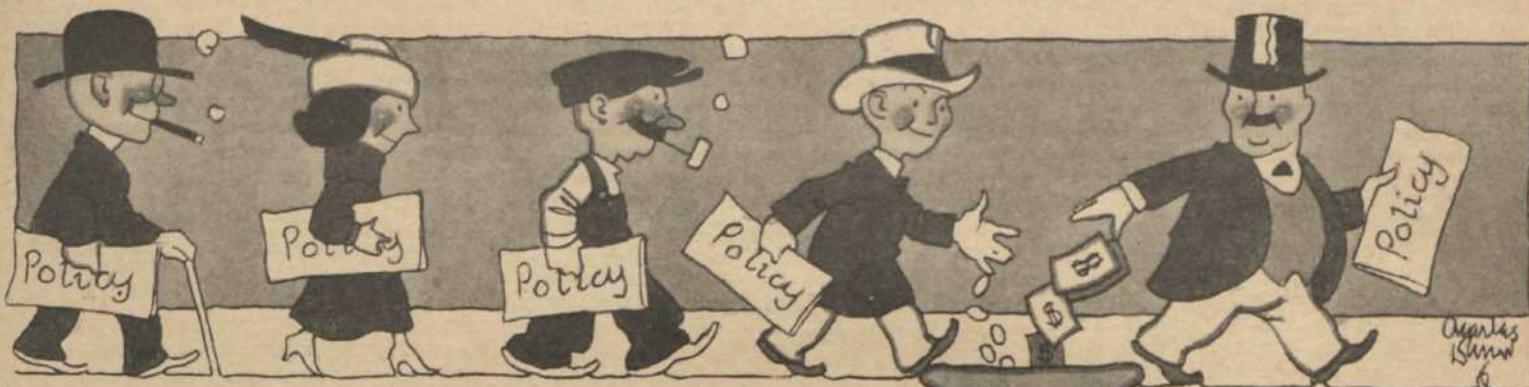
surer nor insured has quarrel. It is fitting that the policy-holders should bear this expense, and they do bear it.

Every policy-holder of whatever form of insurance helps to pay. The tax is collected by the insurance companies and turned over to the various states. The companies, of course, have to figure this item of expense in the premiums. It is not itemized in that fashion, but, like the salesman's new overcoat, it's on the expense account.

Obviously, if the insurance companies collect, by direction of state laws, more than the sum required to maintain the departments of insurance, the premium which the policyholder must pay is higher than it would be if the tax were merely sufficient to meet the insurance department's expenses.

In the case of every state in the Union, a surplus is collected; also in the District of Columbia, which may be cited as an apt illustration.

"The Department," reads the official report for the fiscal year 1922 of the Superintendent of Insurance of the District of Co-



legislatures find it increasingly difficult to provide methods of revenue, they seem to turn, with relief, to the insurance companies. They are great aggregations of wealth, the legislatures say, and they ought to be taxed more, anyhow. The legislatures apparently fail to realize that this wealth is but a pool held to pay policy-holders' claims and that the greater the tax on premiums the smaller will be the sum that goes into the pool. And so legislatures, time after time, have put another tax on the far-away insurance companies and gone back home exultantly.

"We put a tax on the insurance companies," they say. But the insurance companies did not pay the tax and the policy-holders did; so the boast, placed in the crucible, comes down to about this:

"I put another special tax on you, Mr. Policy-holder, at the last session of the legislature." Somehow, that doesn't go so well.

The special tax on the policy-holder applies to all forms of insurance. Take life insurance, for instance.

To begin, the state levies a premium tax. That is a tax of from 1 cent up on every dollar paid in premiums within the state. No matter what state you live in, if you carry life insurance, at least \$1 out of every \$100 you pay goes to the state in the form of a special tax which is not levied against the man who does not carry life insurance.

The total thus collected by the states from life insurance companies ostensibly for the maintenance of departments created to guard the policy-holders' interest, is about \$25,000,000 a year.

It is the practice of many life insurance companies to divide the risk in the case of large policies. Should Company A write a policy of, say, \$100,000 on a life, it may decide to have Company B take half the risk, or \$50,000. This is called reinsurance. Some states levy the premium tax on reinsurance. Thus the premium tax may be doubled or trebled on a portion of the risk.

The policy-holder, of course, pays the tax. It is all figured in the premium. Were it less, obviously, the premium he pays would buy more insurance; or for the same insurance, his premium would be less.

Here is another case of how the special tax works out, so far as the policy-holder is concerned:

A certain city in Virginia faced the necessity of raising more money by taxation. The council decided to levy an additional tax against the fire insurance companies. It did so, and the insurance companies, of necessity, had to raise the premium rates.

Thereupon the city authorities asserted that the insurance companies were discriminating against their city. The insurance companies replied that the city authorities

had increased the cost of doing business in the city and that, purely as a business proposition and without any thought whatever of discrimination, the additional expense had to be made up. Otherwise, on the slight margin allowed them by law, the insurance companies would be doing business at a loss in that particular municipality. There was only one way to make up the additional expense and that was to raise the premiums.

The city took the case to court and carried it up to the highest tribunal, which decided that the insurance companies were right.

In addition to the premium tax, there is the retaliatory tax levied in many states. This is a special tax, levied on insurance companies of other states, equal to the difference between the taxes imposed by the home state on its companies and those imposed by other states. It frequently results in insurance companies organized under the laws of other states paying a higher premium tax than home insurance companies. In reality, this is an additional tax upon the policy-holder.

There are also agents' fees, fees for filing annual reports and various other kinds of fees, all of which swell the total collected by the state. Some states require the insurance companies to publish periodical statements of their financial condition in at least one newspaper in every county of the state. Publication costs of these statements vary. In Ohio, for instance, it costs from \$2.50 to \$4 per paper in each county or \$233.50 for the whole state for one company. Assuming there are 200 insurance companies in Ohio, this represents an expenditure for all of \$46,700.

These reports appear as advertisements. They are not generally understood by the average layman; it is doubtful if one man in fifty reads them at all. But the policy-holder pays.

One great New York company employing about 2,200 clerks, paid out in taxes and fees of all kinds within a given period of time more than \$15,700,000. This sum was about \$1,000,000 more than it paid out, during the same

## The Family Stocking

period, for the salaries and expenses of its administrative officers, its medical department, its rent and its force of 2,200 clerks.

This one company alone paid out in taxes that year many times the total cost of maintenance of all the state insurance departments in the United States. It was passed on, plus the cost of collection, to the policy-holders.

Coming to fire insurance, we have the estimate of one authority, made after exhaustive research, that the special tax including federal taxes, levied on fire insurance, are 5.09 per cent of all the premiums collected by the insurance companies.

In round figures, the fire insurance companies collect between eight hundred million and one billion dollars a year in premiums. The states are levying special taxes against the holders of fire insurance policies which aggregate more than \$30,000,000 annually.

Against these huge special tax levies, variously estimated to total, for all classes of insurance, from \$60,000,000 and up, what is the compensating item on the books? What service do the states render?

There is but one item—the work of the state insurance departments. New York leads the list in the cost of maintaining her department, with a total of about \$400,000 a year. Incidentally, the amount of the special tax collected approximates \$2,100,000 a year. The total cost of maintaining all the state insurance departments is less than \$2,000,000 a year.

Not over 10 per cent at the most of the special



taxes laid against policy-holders goes for protection by state insurance departments and at least 90 per cent is used by the states for purposes absolutely irrelevant to insurance service or protection of policy-holders.

In the fire insurance field, the favorite method of taxation, as in the case of life insurance, is a levy on the gross premiums collected. The rates vary, but they are substantial. In a state levying a tax on re-insurance, the rate may run up as high as 5 per cent of the gross.

In Connecticut the domestic insurance companies are subject to a very heavy stock tax and a franchise tax, which combined represent a penalty on the Connecticut writings of the fire insurance companies, chartered by that state, approximating 30 per cent of their Connecticut premiums. No stepchild in the state is treated to the discipline that the state herself bestows upon her own fire insurance companies.

The states do not collect these special taxes directly from the policy-holders paying them. The insurance companies are used as collection agencies and the expense of making the collection, estimated at from 17

to 20 per cent of the amount of the special taxes, is passed on, along with the tax, to the policy-holder for payment.

How do the states spend the surplus they collect by this method of invisible taxation? In every conceivable way, and in some ways that appear almost inconceivable.

In Kansas, for instance, there is, first of all, a flat tax on every fire insurance company of \$50 for the school fund. There appears to be no special reason why insurance companies should be called upon to maintain the schools by direct taxation, any more than jewelers should be taxed to defray the cost of a trip to Mars, but the tax is there and it goes. In the end, of course, the policy-holder and not the company pays it.

In Ohio, again, as in Kansas, there is a tax of one-half of 1 per cent of the gross premiums on fire insurance (in addition to the gross premium tax mentioned above) for the maintenance of the fire marshal's office. But in Ohio the duties of the fire marshal are not limited to the highly commendable work of preventing and investigating fires.

He must go around among the eating

houses and inspect them and make certain that they conduct their affairs in a manner conducive to public health and happiness.

He must make sure that the hotels are kept clean, sweet and sanitary.

And he must consider the comfort of the weary traveler benighted within the borders of the state. To such he must insure the full protection of the law governing the length of the sheets upon the beds. No longer does there apply to Ohio the tender sentiment of the old song, "When the bed is long the sheets seem shorter." Nowadays, or rather, nowanights, when the sheets are too short, the traveler may take his righteous wrath to the fire marshal and there obtain justice. For the law provides that the marshal must see that the sheets are long enough to fit the bed.

And for performing these and other public services, the policy-holders of the State of Ohio are paying the fire marshal—the policy-holders alone and no other class of citizens, even though the fruits of his labor fall, like the gentle rain from heaven, upon the insured and the uninsured alike.

# Italy's Black Shirts and Business

By BASIL MILES

*Basil Miles, Administrative Commissioner in Paris for the American section of the International Chamber of Commerce, gave in the November number of The NATION'S BUSINESS some first-hand, vivid impressions of post-war Germany. Here are his views of Italy and of Mussolini's Black Shirts as a potent factor for better business. It is not a gloomy picture that Mr. Miles draws. The American newspapers who have looked upon the Fascisti as a sort of Ku Klux Klan may get a new idea of their bloodless revolution against a wasteful government.—THE EDITOR.*

**WE** THINK too readily of Italy as old. Italy is today not only modern, but essentially young. Its industrial centers lie in the great cities of the north and at Naples in the south. Its present unity of government is only about fifty or sixty years old. This salient fact about Italy has only recently emerged in the almost spectacular rise of the Fascisti. No adequate conception of modern Italy, economically and industrially, can be grasped without some appreciation of this movement.

The success of the Fascisti has been so picturesque and sudden that no sound judgment can yet be ventured as to its ultimate achievements. Discredited communists still oppose it; extreme conservatives look askance on Mussolini's open assumption of dictatorship and upon his threatening utterances to the Chamber of Deputies. A profitable outcome of it all must depend to an unusual and possibly dangerous extent upon the leader of the movement and upon his capacity for exceptional restraint and wise statesmanship. In organizing the 300,000 young men who follow him he has already shown high administrative ability, but he now enters upon a larger field of action calling for much broader capacities. The acid test of power still lies before him and his country.

Mussolini grew up a socialist, but he broke abruptly with his socialist associates on the vital question of Italy's entering into the war. Report has it that he set socialism aside for the time, entered the army, was

wounded at the front, and returned with an excellent record.

All through the war a temporizing government had been making successive concessions to the socialists in order to avoid strikes fatal to the supplies of the army. In Mussolini's eyes this meant national death, and he set about the building of a resistance as early, apparently, as 1915 or 1916. He found able helpers, but he has been the leader of the movement from its inception.

The world first became aware of the Fascisti when they intervened in industry. In 1920 the communists in northern Italy took over the factories; it was the Fascisti who put them out. Since that time, the foreign press has reported clashes between the Fascisti and the communists which have sounded like the medieval wars of the Gueffs and the Ghibellines. The incidents reported, however, have been in fact the progressive conflict of a national spirit against internationalism. Mussolini is still a radical, but he is first of all an Italian. If report has him quoted correctly, he has inverted the socialist battle-cry. His own is, first, "Italy"; second, "production"; third, "social reform."

## Fascisti Had Business Support

**AS** the Fascisti movement gained in strength, it became evident that it represented no one class. Its rank and file was made up from the youth of Italy, without class distinction. Such funds as proved necessary came from general subscriptions and from donations which are reported to have included considerable contributions from commercial, financial and industrial interests. In other words, many business men, as well as others in Italy, have supported the Fascisti in the past and practically all of them—at least in the moral sense—support it today.

The success of the Fascisti is an expression of Italy's youth. It is a revolt against incompetent government. The Italians believe they are entitled to the government they deserve. They decided they did not deserve such bad government as they actually

had. Recently, the changes of cabinet have been so kaleidoscopic as to become impossible to follow. Apparently the world at large has failed to appreciate the extent to which, even before the war, public dissatisfaction with government had developed. Everywhere in Italy today the picturesque story of the "two-hat" officials is told. As this story has it, government offices were crowded with men who had two hats. One hat they wore, and took a perpetual holiday with it; the other hat was in the hands of the doorkeeper at their office, and by him was carefully brushed and hung on the proper hook every morning at nine o'clock. Visitors calling to see such an official were told to wait a moment. Shortly the answer was brought that the official was in the building, as his hat was there, but that he could not be found, and must be somewhere in conference. The abuse of the two-hat system is said to have reached staggering proportions.

When Mussolini made his first announcement that he was going to cut the government payroll, some of his supporters feared the resulting unemployment among the rank and file. Mussolini promptly produced a list of official names showing that he proposed to begin at the top. As the story goes, he had every one of the two-hat officials checked up and marked for retirement on evidence which would only make them ridiculous if they protested.

The foregoing is merely an illustration of how the prevalent belief has grown in Italy that Mussolini means deeds first and words afterwards. He confirmed this by an immediate announcement of a program:

First, the abolition of the law compelling the registration of all securities, which was passed under socialist pressure; this law has had the effect of discouraging investors and tying up the natural flow of capital into industry.

Second, a new direct tax measure that will reach the incomes of working men and agriculturists who, it is said, have hitherto es-

escaped the income tax because employers refused to be tax collectors.

Third, the immediate transfer of local telephones to private interests, to be followed by the sale or lease of railroads to private interests.

Fourth, reducing by one-half the Royal Guards established under the Nitti administration, and the state police, the so-called Carabinieri, which have made up a body of about 100,000 men—twice as many as needed, and affording just so many jobs for political heelers.

The budget deficit for the current year is estimated at three billion lira, roughly. Mussolini capped his program by an announcement that his government would wipe out this deficit and balance the budget in two years. A glance at the course of the lira in foreign exchange since Mussolini took hold will show what a wave of confidence has passed over the country, and indeed settled there.

### Labor Volunteers, Too

THE effect of the Fascisti movement in Italy has been profound. Mussolini carried out the equivalent of a general election illegally by force of arms, but without the firing of a shot or the casting of a ballot. In this sense, it was revolution and was accomplished in defiance of the army and police powers of an established government. In another sense, it was the outward expression of a moral awakening. At present the Italians trust Mussolini and will be tolerant of his mistakes as long as he can preserve their confidence in the probity and integrity of his government. By promising respect to all religious beliefs Mussolini would seem to have attached to his support many additional imponderable elements. Furthermore, labor organizations from all parts of the country are now telegraphing Mussolini offering the government an hour of extra work each day.

Italy's need for economy and reform is a pressing one. None of the great powers could as little afford the expense of four years of war as could Italy. Italy's resident population numbers about 38,000,000. Everyone is familiar with the bootlike outline of the Italian peninsula, its volcanoes and the earthquakes which periodically assail its inhabitants. But for all its length of coast line, Italy is almost without natural harbors for its great ports, with the exception of Venice, and now, under the Versailles Treaty, also Trieste.

Moreover, Italy, which is now becoming an industrial country of great importance, labors under the handicap of being poor in mineral wealth. At present Italy's coal production is negligible—15,000 tons in 1921. The country only produces two-thirds of its wheat consumption. In normal times, Italy is rather better off as regards iron, apparently producing a considerable proportion of its iron ore and also of the iron and steel used in its industries. Probably two-thirds of the lead required is also mined in Italian territory.

The fact still remains that the development of Italian industry is as yet seriously dependent upon foreign countries for the requisite supply of raw materials. Two other industries are also peculiarly important in Italy, namely, cotton and silk textiles, which employ about a million workers. But here again Italy has to import practically all her cotton and now since the effect of the war has reduced the production of raw silk, is said to be turning to Japan to supply the shortage for its silk mills.

In one sense that industry is still in an

early stage. For instance, the returns for 1911 show that there were 5,000 odd chemical works, employing 100,000 persons—a personnel of about 20 for each establishment; there were 32,000 textile factories and mills, employing 650,000 persons, which is still only about 20 for each establishment. In the same year, there were 40,000 engineering shops, employing 700,000 workers—about 17 persons to each establishment; there were also 200 silk mills employing about 180,000 persons, an average of 900 to each establishment. According to the census of 1911, there were about 1,000 cotton mills, employing about 120,000 persons, which is 120 to each establishment.

These figures are merely quoted to indicate that small and independent establishments still predominate; that combinations of industry, and factory development on a large scale, are by no means advanced in Italy except in certain industries. There are a few conspicuous exceptions which are of very great importance. The Ansaldo interests not only control large shipbuilding yards, but also steel works and foundries, which at one time during the war are reported to have been turning out 1,000 pieces of artillery a month. This particular firm has suffered heavily since the war and has had to be reorganized. It is nevertheless well equipped physically and is already turning its war capacity to the manufacture of locomotives and railway cars.

The Fiat automobile company, with a new factory just completed in Turin—the roof of which supplies a trial track nearly a mile long—is now turning out from 40,000 to 60,000 automobiles a year. Similar interests of considerable size and high development in efficiency also exist in the silk and rubber industries, and also in electrical development.

### Will Help Coal Situation

WHERE Italy is particularly displaying its useful power of adaptation is in facing the coal situation. The almost complete absence of fuel has led Italy to turn to her water reserves in the Alps and central Italy. The potential energy obtainable from Italy's water power is estimated as something like 5,500,000 horsepower, equivalent to some 4,000,000 kilowatts. What is still more interesting to note is that by 1918, something like 30 per cent of this estimated maximum was actually developed, and another 25 per cent in course of construction or laid out for development.

The hydro-electric power actually generated in 1918 was equivalent to that obtainable from 12,500,000 tons of coal, while the plants now in course of construction or planned, provide for a further production equal to about the same amount of coal. In other words, Italy should shortly be in a position to do away with the importation of something like 25,000,000 tons of coal a year.

If this can be accomplished its favorable effect on Italy's foreign trade position in balancing her imports and exports will be exhibited to a notable degree.

It is thus evident that while Italy is poor in natural resources, the people are resourceful and intelligent, and constantly devising scientific methods of overcoming their natural handicaps. The latest political movement of the Fascisti has had an unmistakable effect in raising the general morale, both of labor and business. Cotton and silk mills apparently are now on a sound basis, and the automobile business would appear to be thriving. Iron and steel industries, which were at low ebb a year ago, show definite signs of recovery.

Nevertheless, out of an aggregate population of 38,000,000, figures available for last summer show that there were still about 300,000 unemployed, and that the country was feeling the effects of restricted emigration resulting from the war. Unlike the French, the Italian population is increasing, and hitherto has found a safety valve in the United States, the Argentine and elsewhere, at an average rate of nearly 275,000 emigrants a year. For 1921 this figure dropped to 60,000. The restrictions imposed on immigration into America have consequently been felt very keenly and have had an unquestionable effect upon the unemployment situation.

### Invisible Imports Increasing

TO what extent these facts may have affected the situation of the merchant marine is difficult to estimate. The net result is—to judge from what can be seen at the great port of Genoa—that while harbors are crowded with shipping, an inquiry soon develops the fact that 60 per cent of the vessels in port are out of commission, lying idle, and that the hammering and riveting heard means the destruction of old tonnage, not the construction of new. Genoa at first glance gives the idea of a port teeming with shipping. There is, however, evidence that the situation in overseas trade is not as low as a superficial glance at the port of Genoa would seem to indicate. The two great commercial organizations of Italy maintain an economic bureau which collects much reliable and valuable statistical material. One of the bureau's recent publications states that while the unfavorable balance of trade in 1921, taken as a whole, amounts to about 6,500,000,000 lira, that is still a remarkable improvement on the unfavorable balance of something like 15,000,000,000 lira which existed in previous years.

At the same time, invisible imports are increasing, notably in connection with the tourist trade. Consequently, the final data for 1921, which is only now becoming available, is expected to indicate that the export and import trade, if not equally balanced, are nevertheless nearing that condition.

Italy has not only faced the consequences of direct expenditures for war, but has also had to provide for the rehabilitation of its devastated areas in the north. For a depth of eight miles on each side of the Piave, from the Alps to the sea, where there had been buildings, factories, pumping stations for land drainage and villages, the armistice found only ruins.

Something like 200,000 houses have had to be repaired, including more than 90,000 totally or partially destroyed. Invasion cost 320,000 cattle. The bill for damages has been considerable. Moreover, from 1919 to September, 1921, over 1,500,000,000 lira have been paid out in indemnities for war losses. But here again the Italians have displayed a youthful energy and determination to rise superior to the obstacles which they have met.

### Wind-Driven Propellers

WINDMILLS to drive ships are the product of the French Inventions Department, an official war agency that has been continued. These windmills are intended to enable countries without coal or oil fields to sail the seas without coal or petroleum. The power of the windmill is transmitted below decks, where it later appears at the propellers. Matches to be used under water by divers who want to light torches are another achievement of the French Government. It must be great fun to run an official invention office in times of peace.

# How and Why of Rural Credits

By BERNARD M. BARUCH

**T**HE BIG slump in wheat prices in 1922 could never have taken place and present prices would be considerably higher, if a proper system of rural credits and cooperative marketing were in operation.

Without regular and easy access to adequate financing, modern business with its highly specialized production and distribution would be impossible. Agriculture needs like facilities in order to be placed upon an equality with all the other industries with which it has to deal.

At the invitation of the Kansas State Board of Agriculture and the American Farm Bureau Federation, two years or more ago, I made an investigation into the financial and merchandising aspects of farming. I endeavored to take the farmer's problems and study them from the business man's viewpoint. I attempted to apply the usual financing and merchandising principles of "big business" to this biggest business in America.

The conclusion was soon forced upon me that the development of modern large-scale business methods and the growth of legislation had been of such a nature as to put the production and distribution of farm products out of line with the rest of the economic structure. The farmer today labors under an artificial economic handicap that works out to his distinct disadvantage.

Possibly the best statistical evidence of this is shown in the exchange value of the farmer's dollar today when measured in other commodities. The statisticians of the Departments of Agriculture and Labor tell us that if prices of agricultural commodities were in a just relation to those of other commodities in 1913, then they are now 36 points out of adjustment. That is to say, the purchasing power of farm products—their exchange value in other commodities—is only 64 cents on the dollar as compared with what it was in 1913—and even then it was not equitable.

Millions of good farmers on good land and with good crops are actually running their business, through no fault of their own or the mischances of nature, at a loss that spells ruin if continued. Capital is being impaired and burdensome debts incurred to keep the farms going and the farm people, and, indeed, all of us, clothed and fed.

This distressing situation is partly due to the general upset of the world during the war and after, but it has been aggravated by the weakness of the rural financing and marketing system. The remedy as I see it, so far as access to credit is concerned, is to set up an entirely new credit system to increase the volume of three classes of rural credits: (1) Credit for the more orderly marketing of crops. (2) Credit for the purpose of raising and marketing cattle. (3) Credit for crop production purposes.

It is unnecessary to dwell upon the necessity of credit for the more orderly marketing of crops. All are by this time, I take it, well aware of the disastrous results that come from forcing upon the market the products of the soil through inability to obtain credit

to carry those products until such time as the markets and transportation are no longer glutted by the great flow.

The basis of increased credits for this particular purpose should be the placing of the products in a modern warehouse or elevator where a neutral authority would register their grade and amount, and where a certificate would be issued for the amount so stored or warehoused. Honest and dependable grading and weighing are essential to the acceptability of warehouse certificates, but should be guaranteed to the farmer as a matter of common decency and civil right under any commercial or financial system. However it may be now, there is no doubt that the farmer has in the past been defrauded by undergrading and scant measuring.

The farmer, once in possession of this

**I**S THE farmer asking credit facilities denied to the merchant and the manufacturer? Why should he have to turn to the Government for this help? What's the need for the Lenroot-Anderson bill now before Congress? These are questions that come to the mind of the everyday citizen who feels that we need less government in business rather than more. Here Mr. Baruch sets out to answer them and to tell the "how" as well as the "why."

Mr. Baruch's point of view is worth the business man's knowing whether or not he agrees, for Mr. Baruch is one of the men to whose advice in business the farmer is ready to listen.

THE EDITOR.

certificate, could obtain credit upon it from a bank in much the same way as is now done; or to a new finance corporation which should be created for the purpose of lending money to the farmer, at the lowest obtainable rate of interest, for not exceeding one year, upon his note secured by this certificate representing marketable commodities. The new institution, intended to be independent of the present banking system, would place the farmer's note, secured by his products, in its treasury, and issue its own obligations, as is now done by the Federal Land Banks in their field. The paper so issued should be discountable in the Federal Reserve System when having not more than nine months to maturity.

Paper issued by a federally regulated institution of this kind would have the widest kind of a market and would place the farmer who deserves credit in a position where he can obtain it at the lowest rates of interest in the credit markets of the world.

The basis of the issuance to cattle raisers would be, of course, the cattle, which would have to be properly inspected, with restrictions that would be applicable in the circumstances. Debentures for this purpose should run for as long as three years, but only notes or debentures having nine months or less before maturity should be discountable in the Federal Reserve Banks.

In the matter of credit for production, because here we do not have collateral of unquestioned value and marketability as in the other two instances, we must consider the character and individuality of the farmer

himself—what bankers call the moral risk. Heretofore, the country banks and merchants have furnished this sort of credit. But, mind you, we are now endeavoring to give the farmer as free access to the credit markets of the world as other producers enjoy, so that he shall not be confined, necessarily, to local markets.

The Raiffeisen banks in Germany and the Credit Agricole in France have as their basis the sound principle of mutual individual endorsement; but I can see very grave difficulties in the way of that system in this country. These could be overcome by the formation of financial associations or corporations in localities so desiring, whose purpose would be to provide the necessary guarantees to the note of the farmer who wants and is entitled, to obtain credit for the purchase of machinery or fertilizer—or for anything necessary to the productivity of his farm. The procedure under this plan would be somewhat as follows:

The farmer, if he cannot borrow from the present banking facilities, goes to the local credit organization. If it decides to lend him money, it takes his note, endorses it and passes it on to the regional institution, which, in turn, places the local body's note in its treasury and issues its own obligation against it for sale in the credit markets of the world. This latter paper ought to be discountable in the Federal Reserve Bank System when its maturity is within nine months.

There is no reason why one central organization should not be the agency for all of the three above purposes, i.e., for more orderly marketing of crops, for the raising and marketing of cattle and for productive purposes.

However, this institution should be rigidly departmentalized and a certain percentage of its funds allocated to each branch of the organization. Its obligations for the three different purposes enumerated would thus stand on their own bottoms, separate each from the other; each fund to be earmarked. Otherwise credit for the more orderly marketing of crops, which have the warehoused product as collateral, and for live stock, would have to pay as high a rate of interest as that which was granted for productive purposes, which has no such marketable collateral.

After all is said and done, the final arbiters of how much money can be raised will be the investing public, banks and bankers, whose ability to furnish money by buying the notes for debentures is greater even than that of the Government. They are entitled to know what they are buying, so that orderly marketing, cattle raising, and production will each bear its just share of interest charges. Interest rates on credit for productive purposes might reasonably be slightly greater than for other purposes.

With proper governmental control and regulation we should thus soon have a new, sound, financial system supplemental to the present one, but independent in its administration, which would free the farmer from

many of the present credit restrictions, of which he so justly complains. Like a big business, the farmer would be able to either get his credit from the Federal Reserve System, as at present, or by going out into the general credit markets organized as well as those with whom he has to compete.

This proposed credit institution would not be a panacea for all the farmer's ills, and indeed in practice it may never be used as much as is now anticipated. But its potential credit-providing facilities will be there to operate powerfully as a restriction of practices of which the farmer now complains and to furnish quick relief in times of widespread credit stringency such as has been recently experienced.

But in considering the farmer's problem, one must have in mind the fact that no matter what credit facilities, no matter what

transportation and what distribution agencies, there must be a market. For the present, at least, a considerable share of the farmer's market must be abroad. The farmers are the real exporters of this country. In the end the price of all products is set by the price of the surplus. In the farmer's case this means that the price of his entire crop is largely set by the price he gets for the exportable surplus.

It is true that last year large quantities of our products were exported—but how were they paid for? In the first place by the sale in this country during the first six months of the current year of some \$600,000,000 worth of bonds issued by foreign countries at the highest rates of interest ever known in the history of international finance. Secondly, by the sale of family heirlooms, called by my old friends in South

Carolina the "wedding rings." Families have sold their famous pictures that have been with them for centuries, in order to be clothed and fed. Already there is almost an end of the sale of bonds of European countries, because nations cannot pay the rates of interest that are being demanded. The supply of works of art and treasures must soon come to an end. The money secured from the sale of the bonds and the family treasures has not been used for productive purposes, but to feed and clothe the population that has been paralyzed by corroding fear.

There is nothing so important to the farmer now, nothing that so directly affects his credit, as the full re-establishment of his foreign markets, which can come only from reestablishment of the world's economic peace and balance.

# What America's Railroads Need

By CHARLES FREDERICK CARTER

**D**AVE HENDERSON was a trainman on the Ontario & Western. For no apparent reason he threw up his job and left. Some time later his former division superintendent, happening to be at a division terminal on the Chesapeake & Ohio, found himself face to face with Dave. After an exchange of greetings the superintendent asked:

"Dave, why did you leave the Ontario & Western?"

"Well, I tell you. I liked the people all right enough, but that road ain't got enough passin' tracks."

In seven words Dave summed up a defect of grave import to him as a railroad man. A lack of passing tracks meant to him that a freight train on even a moderately busy road had to "go in the hole" too often and stay there too long to keep out of the way of trains having superior rights. He had to spend too many hours on the road. He preferred to do his railroading where he could earn his wages with less personal inconvenience.

If Dave was the only person, and the Ontario & Western the only road, affected, the matter would not be worth discussing. But that lack of passing tracks was merely a single symptom typical of the condition of all railroads, a condition of more vital concern to the other 105,708,770 inhabitants of the United States than to Dave. Briefly stated, the problem is:

The producing capacity of the nation,

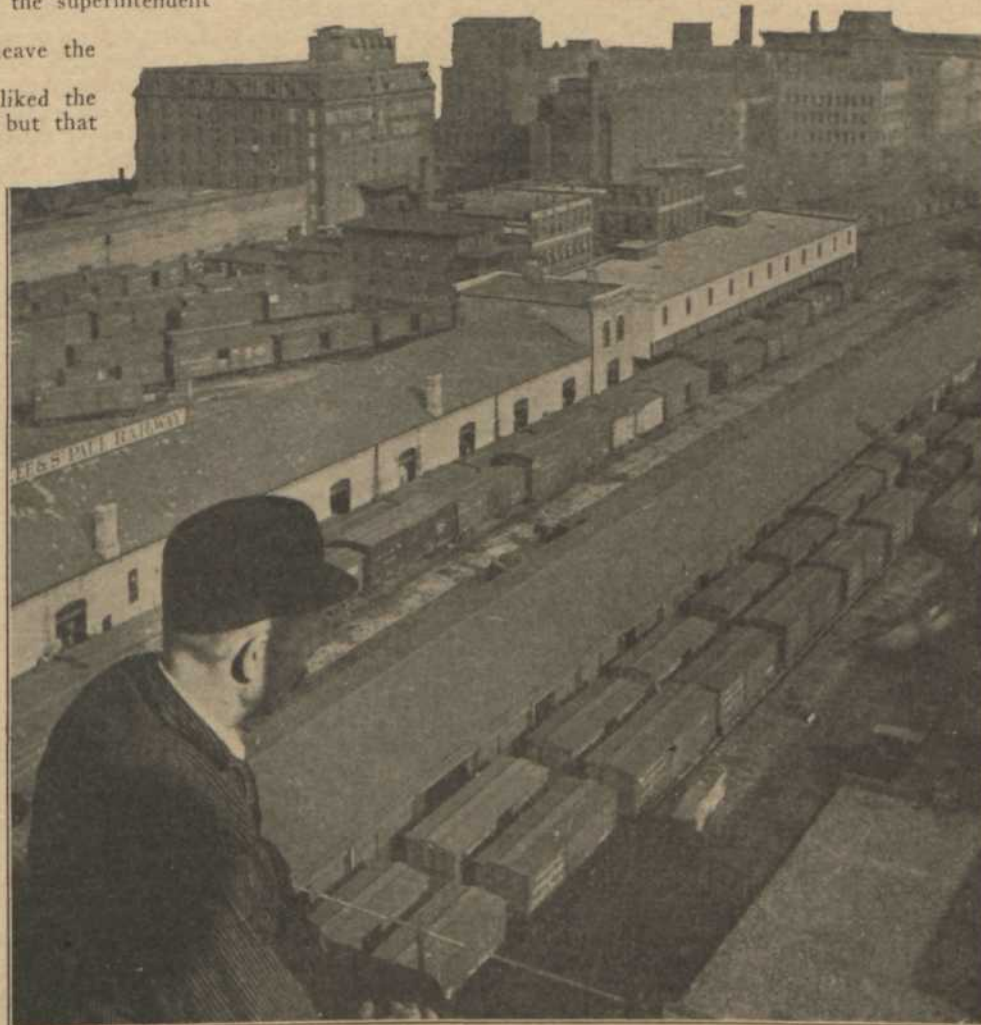
everyone's chance to earn a living, is limited by transportation facilities. Railroads are the only practical means of long-distance inland transportation yet devised. Existing railroad facilities are now inadequate, except during periods of marked business depression, as in 1921. At the very beginning

of the moderate business revival in the fall of 1922 the capacity of the railroads was so overtaxed that only by proclaiming embargoes was it possible for them to function at all.

What are we going to do about it? And if we are to do the obvious thing, just exactly what is involved?

How many miles of main line ought we to build in the next decade or less, if we really are the superior race we are so fond of proclaiming ourselves? How many miles of second, third and fourth tracks? How many miles of sidings and passing tracks, of automatic signals? What do we need in the way of freight and passenger terminals, of steam and electric locomotives, of cars, of shops, of mechanical equipment for handling freight more expeditiously and economically? What would it cost to provide what we really ought to have to enable the country to prosper as it should, as differentiated from what we now seem likely to get?

Since it is not possible to ascertain the ultimate productive capacity of America the country's railroad needs cannot be accurately gauged. But perhaps a few comparisons may help focus the subject. Ten other nations have more miles of railroad in proportion to area than the United States; namely, Austria, Hun-



© Underwood & Underwood

Flour mills and freight cars, links in the chain that leads from our Western wheat fields to Europe's hungry millions. If the transportation link of this chain were better, the American farmer might, in the opinion of experts, be getting 10 per cent more for his grain.

gary, Belgium, Denmark, France, Germany, Italy, the Netherlands, Switzerland and Great Britain. Or if railroad needs are to be predicated on the ratio of mileage to population, four countries are better off than we are: Argentina, Australia, New Zealand and Canada. By either standard of comparison the United States lags behind some other parts of the world.

It cannot be maintained that the limit of the country's capacity to support population has been reached, for we have but 34.9 inhabitants per square mile, whereas no fewer than twenty-three other nations support a population of more than one hundred per square mile. Of these ten have between 100 and 200 inhabitants per square mile, six have between 200 and 300, while seven countries with an aggregate population of 224,103,000, more than twice that of the United States, have more than 300 inhabitants per square mile, the maximum being reached in Belgium with a population of 673 per square mile, or twenty-two times the density in America.

If it is true that America is the richest, most favored country in the world, should it not be able to support as dense a population as little Belgium? If we had as many miles of railroad in proportion to area as Belgium has, we should have 1,738,421 miles instead of 250,000.

Or, if the comparison be deemed unfair on account of the waste areas here, take Switzerland, which is composed exclusively of mountains so steep that a cow durst not graze with her head down hill lest she turn involuntary somersaults. Surely there must be a higher proportion of waste land in Switzerland than in the United States. Yet if we had as much railroad mileage in proportion to area as Switzerland we should have 830,583 miles instead of less than one-third that amount.

#### Why More Mileage Is Needed

TO bring the comparison nearer home, if we had as many miles of railroad in proportion to population as Canada, just across an invisible line to the northward, we should have 233,000 miles more than we now have.

Withdrawing into our own territory, no fewer than fourteen states have less railroad mileage in proportion to area than the average for the whole country. Included in the fourteen are California and Colorado. Where is the man who would dare tell a citizen of either state that it needed no more railroads? Others below the average include Texas, Montana, Oregon, Utah and Idaho, all incredibly rich in natural resources. To bring the railroad mileage of these fourteen states up to the average of the rest of the country would require the building of 70,622 miles of new line.

Iowa, which may be taken as a typical agricultural state, has more than the average railroad mileage in proportion to area. If the whole country were provided with railroad at the Iowa ratio, we should have 642,067 miles instead of 250,000. Or if we were to make Massachusetts, a representative industrial state, the standard ratio of railroad mileage to area, we should have 965,277 miles instead of what we now have. And it must be remembered that more than half the population of the United States lives in cities and towns and so may be classed as industrial. Massachusetts has been enjoying some rather intimate experiences with freight em-

bargoes in recent months. Ask any business man there if he thinks transportation facilities are now ample.

If Pennsylvania, another great industrial state, had as many miles of railroad in proportion to population as the average for the whole country, it would have 10,000 miles more than at present. Pennsylvania ranks third among the states in miles of railroad per 100 square miles of area, but apparently it has not enough.

**L**AST month Mr. Carter told us a story of railroad achievement. Here's a look at the other side. Not that it's a story of railroad failure, but rather one of railroad needs. Terminals, tracks, shops, rolling stock, there's a long list of railroad needs.

Mr. Carter thinks the land transport systems of the country should spend \$8,000,000,000 in the next three years. He says "should." He doesn't say that they will. There's a long list of their wants; terminals and tracks, shops and locomotives, they want them all. And without them, Mr. Carter points out, the progress of the country lags behind. What can be done to remedy the situation Mr. Carter will tell in another article.—THE EDITOR.

Or take the port of New York, the gateway through which the greater part of our foreign commerce passes. No material improvement in railroad freight terminals has been made in and around New York in the last quarter century. Indeed, if the Greenville yards of the Pennsylvania, an improvement costing some millions of dollars, but relatively insignificant in these days of big things, be excepted, nothing has been done. The ancient yards along the New Jersey water front are as they were in the beginning and, apparently, ever shall be.

Freight is ferried across the river on car floats to wooden piers in the last stages of decrepitude and decay to be handled to and from trucks in exactly the same way as the grandfathers of the present generation of truckmen used to do it. All approaches to the piers are jammed with trucks waiting weary hours for their turn to load or unload. The cost of this anachronism mounts high into the millions annually to be paid first by the merchants of New York, but ultimately passed along with interest to the consumer, who always pays the freight.

For years there has been talk of modernizing freight facilities at New York, but only talk. More years would be required to build the improvements even if work could begin at sunrise tomorrow. But it will not. This is mentioned as a sample of conditions nearly everywhere, for a railroad is something more than a main line connecting terminals.

On this showing it must be conceded that the country needs a substantial increase in transportation facilities if it is to continue to progress. Some expert opinions on the extent of these needs may be illuminating.

J. Kruttschnitt, chairman of the Executive Committee of the Southern Pacific Company, one of the ablest railroad men in America, said, in January, 1921:

"The average annual capital expenditures for construction of new lines, and betterment of existing ones for the ten years preceding 1917 (just previous to federal control) were about \$660,000,000; but as the purchasing power of the dollar has declined, twice that amount or \$1,320,000,000 would be needed now to provide what the smaller

sum formerly accomplished. In 1918 and 1919, under federal control, an aggregate of only \$806,000,000 was spent, as shown by the report of the Director General of Railroads. The Interstate Commerce Commission report for 1920 shows expenditures of \$648,000,000 for additions and extensions on Class 1 roads, and for 1921 only \$487,000,000 for these purposes.

"During both these years, 1920 and 1921, railway credit was seriously impaired through falling net earnings and an inadequate return upon their investment, and it was impossible to make any more additions to the property and equipment.

"There has been a recession in prices of materials and labor from the peak period of 1920, but comparing present price conditions with those prevailing during the ten years ending with 1917, when \$660,000,000 annually were spent, it may conservatively be estimated that the higher prices now prevailing would require \$1,000,000,000 annually to accomplish the same amount of betterment and new construction work as was done before 1917.

"In the last four years the aggregate expenditures were less than \$2,000,000,000 leaving an accumulated shortage for these four years of \$2,000,000,000 as compared with the normal requirements. The task of making up this shortage will offset the effect of any possible further reduction in prices toward the low prices prevailing before 1917, and it is a conservative estimate that for some time to come the roads will have to expend \$1,000,000,000 annually for extensions, betterments and new equipment. Of this sum approximately one-third should be devoted to equipment and the remainder to other betterments, additions and extensions."

#### Many Places to Spend the Money

**O**NE-THIRD of the sum he names should be devoted to the purchase of equipment. How far such a sum would go toward providing equipment may be judged by the fact that the New York Central alone recently placed a single order for nearly \$14,000,000 worth of locomotives. Some idea of how far the remaining two-thirds of the billion would go may be gained by observing that the same road is now building a cut-off, including a bridge across the Hudson, to cost \$20,000,000; has just announced a project for a new passenger terminal in Chicago to cost \$100,000,000, and has under consideration plans for passenger terminals in Buffalo and Cleveland to cost at least as much more. And there are many other cities on the road wondering when their passenger stations are to be brought up to date, and more particularly when freight terminals are to be enlarged and modernized so the workers of the country can earn money wherewith to buy tickets at the new passenger stations.

More liberal was the estimate by *The Railway Age* in 1920. Nine men, each a specialist in some branch of railway economics, spent a lot of time trying to figure the thing out. They were not charged with the responsibility of carrying out their proposals, nor did they have behind them stockholders wondering if they ever were to see a dividend again. They could afford to be generous, so long as they kept within approximate bounds of reason.

The *Age's* forecast was for the three years ending with 1922, "based on a general con-

sideration of increase in investment in the decade between 1905 and 1915 and the increase in the amount of traffic during that period, on the amount of investment since then and the efficiency with which facilities have been utilized since." The sum named was \$6,010,280,000, divided as follows:

6,000 miles additional main track	\$1,250,000,000
Grade revision, cut-offs, track elevation, etc.	600,000,000
Engine houses and shops	250,000,000
Station buildings	300,000,000
Extensions	600,000,000
Signals (10,850 miles block)	52,264,000
Freight cars	1,662,000,000
Passenger cars	532,000,000
Shop equipment	61,230,000
Locomotives	702,786,000

\$6,010,280,000

It was stipulated that the foregoing was not an estimate of the total amounts needed, but only the part which should be charged to capital account—new capital which the railroads should raise and invest up to the end of 1922 to bring facilities abreast of the needs of American commerce.

These men confined themselves to a discussion of what *ought* to be done merely to bring the railroads abreast of current needs, and E. P. Ripley, late president of the Atchison, Topeka & Santa Fe, said their estimate was not too large.

#### Where the Country Loses

AS Mr. Kruttschnitt has observed, not even his own more conservative estimate of railroad requirements has been met; instead there is now an accumulated shortage of \$2,000,000,000 that ought to be made up. Add this shortage to the *Age's* three-year program, now more urgently needed than ever before, and it would make \$8,000,000,000 that *ought* to be invested in additional railroad facilities before the end of 1925, not so much out of solicitude for the railroads as for the sake of all of us. The likelihood of any such sum being raised by the railroads and expended is not under discussion here.

The lack of the increased facilities that should have been provided but were not is costing the country in losses of various kinds directly attributable to inadequate transportation far more than the interest at 6 per cent on ten billion dollars would amount to. On this point Julius H. Barnes, president of the Chamber of Commerce of the United States, who was head of the Government's grain corporation during the war and who has been in the grain exporting business for thirty years, has done a little figuring on the cost of inadequacy in transportation which has restricted the flow of grain from western farms to Europe. In Mr. Barnes' opinion the difference between the prices of grain in American farms and in foreign markets averages 10 cents a bushel more than it would if transportation conditions in this country enabled the grain to flow normally to market. Actual conditions, so he estimated, were costing the farmers \$400,000,000 a year on grain alone. Applying similar reasoning to all the rest of the nation's industry, Secretary Hoover recently estimated that every period of transportation shortage costs the country a billion dollars.

"The losses through short transportation," said Secretary Hoover, "are a tax upon the community greater than the cost of our government because such a shortage not only stifles the progress of production and introduces speculation into distribution, but it also seriously affects price levels. No better instance exists than the lift in the price of

coal by over 300 per cent in 1920 when there was no strike and over 60 per cent in 1922 after production following the strike had been resumed.

"In both cases the mines could have produced 30 per cent more coal, and if the railroads could have transported even 20 per cent more then prices would have been normal. The car shortage also directly affects our farmers because in every car shortage period a price differential on grain below

the Liverpool price sets in of 5 to 15 cents a bushel. The losses to live stock growers are very great because of the necessity of feeding stock beyond the fattened stage. And there are regularly great losses in fruit and vegetables because of the lack of refrigerator cars."

The sum of all these losses comes out of your pocket and mine, not out of the railroad's till, because not even a railroad corporation can pay out what it does not take in.

## Notes from Deluded Russia

GRAIN LOAN BONDS have been tried in Russia by a government which has found that after all private property is a mighty good thing. Bonds were offered to the public in denominations, not of currency, but of rye. A subscriber asked for a bond for one pood of rye or 100 poods of rye.

So far, so good, even in Russia. The use of rye to indicate a denomination went no farther. A peasant who wanted a bond found he could not tender rye; he had to pay in money. In fact, the government never thought in terms of rye; it had its eye fixed on currency. It made the issue price 95 per cent of the average price of rye.

Even rye bonds will not float themselves, various theories to the contrary notwithstanding. The State Bank undertook the task, and in good capitalistic fashion got a commission, and a commission that would indeed make the fortune of a banker handling a government loan in a capitalistic country!

PRIVATE BUSINESS since it has been permitted is leaving State and cooperative enterprises far behind in Russia. In January, 1922, private business was only regaining its feet and handled 12 per cent of trade, as against 76 per cent by State enterprises and 11 per cent by cooperatives. By August, private concerns had 50 per cent, and the percentage of the other two sorts of enterprises had fallen respectively to 47 and 2.

YEARLY ROUBLES are now the fashion in Russia. Everybody in Russia will be busy examining the dates on the bales of paper currency they receive. The 1923 rouble is officially decreed to be worth 100 of the 1922 variety. The 1922 kind is decreed to be equal to 10,000 of the sorts put out in the two or three preceding years. According to the official rate of exchange decreed in Moscow, the dollar in October was worth 970 of the 1922 roubles.

SKILL does not thrive under the present regime in Russia. An official survey made in August disclosed that now 8 per cent of the persons employed in coal mining are skilled, as against 14 per cent two years ago and 21 per cent in 1913. In metal mining the skilled employees now constitute 12 per cent, but were 35 per cent in 1916. For electro-technical industries the percentage is now 48 per cent, but was 55 to 60 per cent in 1913.

NATIONALIZATION and cheapness do not go together. Now that Russian railroads have been brought to a condition of collapse, rates are being increased by 100 per cent.

Degeneration in all economic facilities is producing increasing unemployment. Jobs are disappearing even for Soviet employees. Town workers are consequently going to

the country. Soviet authorities have accordingly tried to add to the farmer's happiness by decreeing the eight-hour day for agriculture.

#### Indicted Under Sherman Law

THE WINDOW-GLASS INDUSTRY, or the part of it which makes hand-blown window glass, is concerned in an indictment returned in Cleveland early in January. Regarding the case the Attorney General issued a statement. He describes the proceeding as based upon a wage agreement made between the manufacturers and the organization of their employees. The allegation is that both the manufacturers and the union officials violated the Sherman Act.

The violation, according to the statement, lies in the fact that the union granted each concern a wage scale only for one factory for the first four months of the year. For the second four months it would grant a wage scale for another set of factories, and similarly in the final third of the year. The net result, the Department of Justice says, is that every factory would be forced to remain closed for seven and a half to eight months in the year.

RESALE PRICES were briefly before the United States Supreme Court on January 8. This was the woolen case. In effect, the court refused to go over again the ground which it considered it had already covered in the Beechnut case.

At the same time the court directed that the order entered by the Federal Trade Commission should have eliminated from it the paragraph which the court struck out in the Beechnut case. In other words, the court said that the commission's order should not prevent the woolen company from refusing to sell to a dealer that did not follow resale prices the company had indicated as those it desired.

FREIGHT CARS and locomotives are to be subjected to a comprehensive survey. By February 1 the railroads are to send to the Interstate Commerce Commission complete information about their equipment, its capacity, its age, and its other essential characteristics. Each one of the railroads is to get out its data upon nineteen statistical sheets.

When the statistics have come in, the commission undoubtedly will set hearings at which it will listen to testimony regarding the adequacy of railroad equipment and upon the manner in which it can be managed to the greatest advantage.

A BANANA bulletin cannot be issued by every commercial organization. The Tuxtepec Chamber of Commerce, Oaxaca, Mexico, however, has the chance and is making the most of it.

# Selling the Historic Past

By HARVEY FERGUSON

Author of "The Blood of the Conquerors"

"GET AWAY from the railroad and shake hands with a thousand years!" The slogan is that of a certain firm of "dude-wranglers" in a New Mexico town, but it is an admirable embodiment of the spirit in which the whole southwest greets the eastern tourist as the latter steps from the train or rolls into town in his mud-spattered, pennant-plastered, trans-continental car. And the southwesterner continues his little speech somewhat as follows:

"See our ancient cliff dwellings, where men lived a thousand years ago, and the soot is still thick on their chimneys. See the pueblo of Acoma which has not changed since the Spanish soldiers stormed it in the sixteenth century.

"See the oldest town in North America, and the oldest street in the oldest town, and the oldest house in the oldest street, and let the oldest inhabitants tell you all about the oldest times in these United States.

"Look at the remains of the oldest apartment house on earth which was larger than the Capitol in Washington and contained as many rooms as the Pennsylvania Hotel in New York.

"Gaze in wonderment upon the house in which Kit Carson lived and the iron bed in which the last Spanish Governor of New Mexico slept, and the room in which General Lew Wallace wrote 'Ben Hur.' Take in the pueblo of Taos which was an old town when Columbus was a baby and hasn't had a boom yet.

"And, incidentally," this eloquent person might continue, in a spirit of soliloquy, "while you are taking in all of these antique wonders, and breathing the incomparable benefits of our salubrious climate, and being inspired by our more-than-Alpine scenery, you will stop at our hotels, which have nothing old about them, but are as new and fresh as the dew upon the rose, and you will have your excellent car repaired at our garages, which are so up to date that the paint on their doors is not yet dry.

"You will also buy Navajo blankets and beads and earrings and bracelets and pottery at our neat little curio stores. And we

will also sell you a wide hat and a red shirt, that you may not be an incongruous figure in our picturesque country.

"We will sell you also books about the country, and if you do not care to read we will tell you all about it by word of mouth.

If you want to rough it, we will take you into the wilderness on the back of a guaranteed non-bucking broncho, and if you are effete and elegant we will show you the west through the door of a limousine and serve you tea with lemon juice at four o'clock in the afternoon.

"In fact," the getleman with the enthusiastic manner and the unflagging voice continues, "there is literally nothing that we cannot and will not do for you, and the reason is that we need you in our business. Just a few short years ago this town was no more of a tourist resort than is Hoboken,

fail and the bottom may drop out of the wool market, but the past, so to speak, goes on forever. It is just as good a business proposition in a dry year as it is in a wet one, and the more we sell of it the more we can sell. Antiquity just gets antiquer all the time. It is an inexhaustible resource. The horn of plenty was a dead stock by comparison. Truly, our past has a great future."

There is a suspicion abroad, often voiced by high-brows, that the man of business does not take any interest in history. The great lessons of the past are lost on him, they say. Let sceptics journey into the land of the advertised sun. They will discover business men who know more history than most college professors, and who show an enthusiastic interest in it.

It is true their interest is confined largely to the history of their own section, in which they deal. Of the battle of Bunker Hill and the landing of the Pilgrims they speak calmly, if at all. But get them started about the antiquity of the Pueblo villages, or the stirring days of the Spanish conquest, and their emotion is touching. They bring on the rhetorical phrase and the sweeping gesture. Their eyes flash and they breathe hard. Any suggestion on the part of the stranger that there are places just as historical as the southwest is resented almost as an insult. The antiquity of this section is beginning to take on something of the sacerdotal character which belongs to the climate of California.

The president of the Chamber of Commerce in Albuquerque has become, by the necessities of his business, a pretty competent historian and archaeologist. He can and does deliver a practically continuous lecture on the historical wonders of the surrounding country.

Imagine, if you can, a Rotary Club devoting all of one of its luncheon periods to a discussion of the history and restoration of a church three centuries old. The writer attended such a Rotary luncheon last summer. The object of the meeting was to persuade the Rotary

Club to raise funds necessary for the preservation of the church. A leading real estate dealer had already made the state a present of the ruin and of the land on which it stood. First, an archaeologist from the state museum rose and made a talk on the old church and its significance, which was listened to with interest and loudly applauded.

Then a famous local orator took the floor and made the real selling talk. He told of the sad condition of this old church, which was fast falling into decay. He emphasized the growing, nation-wide interest in southwestern antiquities. He visualized the long string of auto tourists which was even then wending its way across a continent to gaze



The Southwest is capitalizing its native population, and Lo is encouraged to retain his blanket ready for the moneyed tourist.

New Jersey. And then we discovered our past.

"Now tourists are rolling in here to the tune of two hundred and fifty a day, and by close and careful observation we know that every tourist who rolls in rolls out about ten dollars lighter on an average. There are still 365 days in the year and we have an all-year-round climate. Figure it out for yourself.

"We believe in our industrial future, as does every town in America, and we are immensely interested in our present, but above all we believe in our past. Crops may

upon these relics of an ancient civilization. He touched upon the fact that not one of these tourists could reach that old church without passing through Albuquerque, and he challenged any tourist to pass through Albuquerque without leaving at least a few dollars in his wake.

He made the hard-headed men of business see that this old church was an old friend, working for them day and night, and that it was badly in need of a little assistance. The money necessary to restore the church was raised forthwith.

It is not meant to imply that the interest of the southwestern business man in history and archaeology is a purely mercenary one. On the contrary, there is abundant evidence that he is developing an interest in these things for their own sake. It is becoming more and more the custom for the local town-folk to make long Sunday excursions to ruins and to Indian pueblos where dances are being held. These vivid and picturesque reminders of old, half-forgotten days do, after all, have a certain charm and an appeal to the imagination, when you come to notice it.

### Poor Lo a Selling Point

AN essential and somewhat bewildered part of this profitable past is poor Lo, the Indian. He and his villages and native customs and ceremonial dances are just as much relics of the early days as any old ruin, and he has the advantage of being alive and active. He lends a touch of color and motion to the scene. Everything he does nowadays draws a capacity audience. When the Hopis stage their snake dance, every inch of available roof is covered with tourists, hiding cameras under their coats, and late comers get standing room only on the ground and have to jump out of the way of the snakes.

The Indian, on the whole, makes a remarkably good adjustment to his altered circumstances. Not so many years ago he was regarded as a menace. Later, when he had been conquered and planted on reservations, he was considered chiefly as a burden. Now he is a selling point and is treated with the tender consideration which a good selling point deserves. He is invited to come to town and sit on the hotel steps and sell pottery and silverware and weave blankets in the museum, for the edification of the gilded visitor, and build his *hogan* in the vacant lot across the street from the leading hotels.

The whole attitude toward him has changed. The paleface used to look upon him with contempt and wonder whether he would ever make any progress. Would he ever learn to use modern farm implements and wear a hard hat and save money and chew tobacco and raise whiskers? Would he, in a word, ever become a good American citizen? Now all that is changed. They hope to heaven that he never will learn to be a good American citizen. They want him to be an exhibit. If he comes to town wearing overalls and a vest instead of leggings and a blanket, his white brother resents it. He is exhorted to be just as picturesque as possible.

He seems to get the idea pretty well. There are some pickings in the tourist business for him, and he is not so slow about picking them. He sells pottery and other souvenirs almost as fast as he can turn them out. He is good-natured and polite and has learned how to talk to the tourists. He understands that every interview with a man who carries a camera should conclude with the palm extended and the mention of a certain sum of money. The Indians of Acoma have even gone so far as to charge admission to their ancient citadel upon its rock. Being a member of a van-

ishing race, they begin to perceive, is not without its advantages.

Finally, all of the southwesterners have the virtuous feeling that they are conducting a great educational enterprise. The general ignorance of that section of the country, they find, is something to appal. Every once in a while some Albuquerque merchant is refused a bill of goods he has ordered on the ground that the firm cannot sell in a foreign country.

### The Modernized Snipe Hunt

MANY of the tourists are surprised that they can get a bath in that wild country. Many of them think it is wholly tropical and expect to find palm trees growing beside the railroad station. A surprisingly large percentage of them believes that the Rio Grande is everywhere the dividing line between Old Mexico and the United States. Those ancient devices for amusing the stranger—the snipe hunt and the badger fight—have given way to a new amusement. The visitor is invited to take part in a liquor-smuggling raid, and is scared half to death while wading across the river with a bottle of turpentine under his arm. Many a tourist, when he alights from the train, immediately breaks for the Rio Grande in a lope and is with difficulty restrained from plunging into its quicksands, being firmly convinced that a highball is waiting just beyond.

Old Mexico and freedom, alas, are several hundred miles away. But if he cannot get a real Mexican drink, the stranger can get almost anything else he wants. He is deeply appreciated. The spirit of the country is hospitable. And its prices are moderate compared to those of some sections that have been in the tourist business a long time. You get a lot of the glorious past for your money.

# Handling Men, the Mitten Way

By RICHARD SPILLANE

A RAILROAD official got off a train at Wyndham, Ind., one winter day in 1886.

There had been a heavy snowstorm, but paths had been cleared and everything made as neat and orderly as possible. The town was small and the "station" was an old box car. To get into it you had to go up some improvised steps.

"Who cleared away the snow?" the official asked.

"I did," the young man who was station agent and telegrapher replied.

"Huh!" the official grunted.

Then he went into the box car. It was both home and office of the agent. There were two bunks in which he and another employe slept. There were decorations on the walls. Everything was rude but clean.

"I have some correspondence to attend to," said the official. "Can you take some letters from dictation if I speak slowly?" The young man said he could. By the use of telegraphic abbreviations and arbitrary contractions the station agent managed to take down the official's words at a fairly rapid rate. Later he wrote the letters without an error.

Some time later he was transferred to Attica, the principal station on that branch line. The telegrapher-station agent was Thomas E. Mitten, today the most talked of man in the trolley field in America.

When Mitten got his education and wide knowledge is not clear. He was born in Brighton, Sussex, England, March 31, 1864. In 1875 his father, with a family of eight, emigrated to this country and settled on a small farm at Goodland, Ind. There wasn't much schooling for Tom Mitten. His life was the hard one of the son of a struggling farmer. Of comforts he knew few. In addition to farm work he carried the mail and, when he found time, he went down to the station at Goodland and gradually picked up telegraphy.

He was 21 when he got his first regular job, the one that brought real wages. It was that of station agent at Wyndham, Ind., the place of the box-car episode. His pay was \$30 a month. It was in that box car that a friend taught him fractions, long division and percentage. Before he was 40 he was engaged by J. P. Morgan & Company as a traction expert.

It was in the west that he got his first experience in electrics. He had married and his wife had died. In 1890 he went west. He didn't find it easy to get a job. He was in the office of the Denver & Rio Grande one day seeking work and had been told there were no vacancies when he heard a message coming over the wire from Pueblo saying an operator at a certain town had resigned and one was needed in his place.

Mitten got to Pueblo by the first train.

Also he got the job. He was with the D. & R. G. three years in various berths, among them assistant freight agent at Denver. Then he was put in charge of the Denver, Lakewood and Golden railroad, a short suburban line running from Denver to the coal mines at Golden. He put part of this road under electricity and, incidentally, did so well in operating the property as to attract the notice of various observant men.

All this was primary work. It was at Milwaukee that he really started on the labor program that has made him an international figure. Things were in a very bad way there with the traction company when, in 1896, he got an offer of the assistant superintendency which he accepted. Soon he was promoted to the general superintendency. It is said that when he reached Milwaukee the local feeling was so bitter against the company that he had difficulty in getting living quarters. Then there came a strike. Sentiment was wholly with the strikers.

It was in the settlement of that strike that he introduced what since has come to be known as the Mitten plan of cooperation of men and management. It has been fought bitterly by organized labor and by capital, but it has come to flower wonderfully. Later it will be explained in some detail.

So far as Milwaukee is concerned, the re-

sults were such that when in 1901 he was called to Buffalo to handle the traction company there in the period of the Pan American Exposition the authorities in Milwaukee did everything in their power to induce him to remain in Milwaukee. In his office today you may see the resolutions they passed in recognition of his work there, and it is said an offer was made to him of franchise for any thoroughfares he desired if by that means he could be retained in Milwaukee.

Queer change from his reception in 1896.

He did wonders in handling the immense number of visitors to the Buffalo Exposition. One of the simple but new features he introduced was the trailer, now used to a large extent throughout the country.

In 1905 he took charge of the trolley lines of Chicago. They were in a horrible mess financially, and the labor situation was almost as bad as he had faced in Milwaukee. Today Chicagoans say he gave to the city the best transportation the city ever had. What is more important from the financiers' viewpoint, he earned dividends for the stockholders. Incidentally he tested out satisfactorily the principles of men and management cooperation.

Next came Philadelphia. If ever there was a mess in a transportation company's affairs it was presented by the P. R. T.—the Philadelphia Rapid Transit Co. As in other cities, but to a worse degree, the franchises of the old street car companies had been capitalized in the transformation from horse cars to electric power and, superimposed on these, were other companies with the P. R. T., nothing but an operating concern, at the top.

When Mitten got to Philadelphia in June, 1911, the property was in bad financial and physical shape. Added to this he had two violent strikes in the first year, strikes which for bitterness and intensity of feeling had few equals in urban transportation records. But there have been no strikes since, and today the company pays dividends, the employees own 60,000 shares of the stock, have two of their representatives on the Board of Directors, their savings amount to more than \$1,000 a day for every day since Mitten came to Philadelphia, and there are no happier, more prosperous or more earnest workers in the transportation industry of America than the more than 10,000 employee stockholders of the P. R. T.

Privately various labor leaders have declared that if all employers were like Mitten there would be no need for labor unions and labor leaders would be out of their jobs. Publicly, many of them, Gompers particularly, denounce him. Within the present year the men who brought him to Philadelphia broke with him, declaring he was giving too much to labor, and planned to

control, really had comparatively small holdings or were able, until a vital issue was presented, to control the votes of a considerable portion of stockholders.

What is this Mitten plan of men and management?

In essence it is that strikes are utterly futile in settling the dispute between capital and labor and that justice and right can be obtained by reason and fairness. Mitten believes in the fullest reward to labor for faithful, honest and good work, and that by its production labor's reward must be measured. Cooperation is his demand, his insistent demand. It always wins, he tells his men. He has them now to a point where they preach it and practice it most earnestly. Their wage scale is based on the average of four of the large cities, and it moves up or down with the average of those cities.

But they have made the P. R. T. prosper to such an extent that they are getting 10 per cent dividends on their yearly pay for what he terms "super cooperation." In fact, they are the best-paid trolley workers in America, if not in the world.

Where there are any questions of dispute the matter goes first to a board made up of branch committees, 50 per cent representing employees, 50 per cent management. Appeal from the finding of this board can be taken to a general committee made up of equal representation of men and management from all departments.

Appeal from decision of this committee can be taken to an arbitration board made up of one-third of men, one-third of management, and one-third of representatives of

the public. Its decision is final.

But disputes are rare. Men and management are partners. They trust each other, believe in each other, and are fair to each other.

Has this man the key to the puzzle that has vexed employer and employed for ages and has cost as much in money almost as have the wars between the nations?

Few persons appreciate the monetary cost of strikes. The loss due to the railroad and coal strikes this year has been estimated at more than \$2,000,000,000. That is far more than the total cost of the War of the Revolution, the War of 1812 and the Mexican War. The monetary cost of the Revolutionary War was small. That of the War



This is Mitten, the man who, according to men like Lord Milner and Dr. Charles W. Eliot, is pointing the way to industrial peace

oust him. A call was issued to the stockholders for proxies for that purpose. A delegation of the workers thereupon called upon one of the banker directors and demanded that he support Mitten. They didn't make any threats, but they did make it clear that between Mitten and the bankers every one of the 10,000 employees were with Mitten.

The most remarkable feature of this whole affair was that, when it came to a showdown at the stockholders' meeting, every stockholder voting supported Mitten. The old directors were ousted. Today the directorate is wholly composed of representatives of the management, the employees, and the city government. Evidently the banking element, formerly supposed to have stock

of 1812 was \$119,624,000. That of the Mexican War was \$173,298,000—trifling compared with those great strikes.

From Mitten's remarkable success with labor it would be supposed he is a hail-fellow-well-met kind of person with laboring men. He is not. He keeps aloof, almost. He does not patronize labor. He asks for results. But he thinks of and for labor and for labor's wife and labor's children. He has induced his men to save against the vicissitudes of life. They have pension funds, sick benefits, savings funds, etc. To some of these he puts in a dollar for every dollar the man puts up.

He makes out a budget for the families, showing what should be the legitimate ex-

penditure of a household according to its size and the ruling prices.

He has saved many children's lives through the work of Miss Rodifer, better known as Miss Safety First, who has drilled the school children of Philadelphia to cross streets in platoons under the direction of self-appointed captains and lieutenants. That's cheaper than paying claims. Besides, it's bad business to kill potential passengers.

He arises before 5 a. m. and clears up most of his work for the day before most business men get to their offices. The rest of the day he has clear for conferences or, if he so desires, play. He plays on his farm. He has gone back to the farm—reverted to type, so to speak. His farm is a wonderful one, where he has a fine lot

of hunters and jumpers. He loves cross-country riding and putting a thoroughbred "over the fences."

He is an omnivorous reader and is exquisite in dress and in his surroundings. He works hard, plays hard, and at 58 is as fit physically as most men are at 30.

He has a passion for getting things right. He is vigorous and luminously expressive without being blasphemous.

He never balks at junking stuff that is expensive but useless.

He never tries to get money back by using that which is not efficient.

Men like Lord Milner and Charles W. Eliot, president emeritus of Harvard, say he is pointing the way to peace between employer and employed, and the only way.

# An Indiana Railroad Knight

By GEORGE HOWARD

**O**F COURSE I do not expect to wipe out an annual deficit of more than a hundred million dollars at once," said Major General Sir Henry Worth Thornton, K.B.E., M. Inst. C.E., Commander of the Legion of Honor of France, Officer of the Order of Leopold of the Belgians and holder of the Distinguished Service medal, when he passed through New York not long ago to assume his new position as chairman of the board of directors and president of the Canadian National Railways.

"I shall hope to reduce the deficit, but it cannot be entirely overcome for some years. Canada is a new country; at least, that part of the Dominion chiefly served by the Canadian National Railways is new. As is usual in new countries, the railroad lines were built in advance of settlement in the hope that people might come in and eventually create traffic that would make the railroad enterprise profitable. We shall have to have immigration of the right kind. Canada is pursuing a wise policy in selecting prospective citizens with extreme care. I know something of the Government's plans and of the program of an organization of citizens formed to encourage immigration. As a department of the government the railways will, naturally, cooperate with other departments in this, as in other activities.

"I did not bring any novel ideas from England to apply in the management of the Canadian National Railways. I shall do what any good business man would do in taking charge of a great property: I shall do my best to administer the system with efficiency and economy. Politics will not be permitted to play any part in railway administration. I know very little about the system beyond what is known to every one and, therefore, am not in a position to talk about it. My first task will be to spend several weeks on the line to get acquainted with the property."

General Thornton—you may like to know that everybody addresses him as "General," and not as "Sir Henry"—in outward appearance is the most outrageously healthy and robust gentleman of fifty years that could be found in a Sabbath day's journey. Still judging by appearances, he has spent his nine years' exile in England at nothing more exhausting than cricket and golf and the like. He looked as if he could wrestle successfully with the Canadian National Railway system of 22,114 miles with one hand, though he

probably will need both before he gets through. For he has undertaken a task that will make his former activities look by comparison as if he had, indeed, spent the preceding years of his life at nothing more engrossing than golf. And he has had an extremely interesting career, at that.

General Thornton was born at Logansport, Indiana, November 6, 1871. At the famous St. Paul's school at Concord, N. H., he became a warm friend of J. A. McCrea, now a vice-president of the Pennsylvania Railroad, whose father afterward became president of that system. That friendship, which was destined to be renewed and strengthened under unusual circumstances afterward, determined young Thornton's career. He decided to become a railroad man and to begin on the Pennsylvania. On finishing school McCrea went to Yale, Thornton to the University of Pennsylvania.

## New York Discovers Him

**O**N graduating young Thornton found a position as draftsman in the office of the Chief Engineer of the P. C. C. & St. L., at Pittsburgh, for immemorial custom has ordained that the only way to promotion on the Pennsylvania lies through the engineering department. After humping over a drawing board as a matter of form for five months, Thornton, faithfully following the prescribed routine, became assistant engineer of construction in May, 1895. Six years later he had completed the cast iron courses in the engineering department and was then advanced to the operating department as superintendent of the Marietta division.

Thornton had not been a superintendent in Ohio long before he lent Destiny a helping hand. In some way not now remembered he obtained an invitation to deliver an address before an organization in New York. He chose as his subject "The Man Behind the Counter," the gentleman in question being the railroad agent who was represented as a salesman charged with the duty of selling the perishable product of the railroad industry, transportation, before it spoiled on the maker's hands. The point of view was new then, and the speech made a hit. For the first time New York discovered that there was such a person as Henry W. Thornton. Destiny and the Pennsylvania Railroad also sat up and took notice. The latter lost no time in transferring Thornton to New York,

or rather to Long Island City, as assistant general superintendent under his old chum, J. A. McCrea, now general superintendent. McCrea was soon made general manager, while Thornton was advanced to the post of general superintendent.

While the Pennsylvania Railroad was getting its breath after this dizzy succession of promotions, Destiny, in the form of Lord Claude Hamilton, chairman of the Board of the Great Eastern Railway, of England, kidnapped Thornton and took him to England, where he resigned his position as general superintendent of the Long Island by cable. This was in February, 1914.

Lord Claude Hamilton thought Thornton's experience as general superintendent of the largest electrically operated suburban railroad system would be useful in the contemplated electrification of the Great Eastern. His move in coming to America to choose a general manager and chief engineer combined in one person started an uproar that came near capsizing the tight little isle and spilling its inhabitants into the sea. It might not have been so bad if Lord Hamilton hadn't tried to explain; but, as usual, explaining was like trying to quench a fire by pouring gasoline on it. The newspapers fairly frothed at the mouth about the outrage.

Thornton poured oil on the troubled waters by sending for reporters of the London papers and talking to them as he would have talked to a bunch of American newspaper men.

"Give me a chance to make good, and don't judge me before I have had it," said he. "That is all I want—British fair play."

Now what satisfaction can there be to any one in abusing a man who talks like that?

Thornton followed up this opening by reassuring officers and employees who, wrought up by the newspaper outcry, had all expected to be fired before breakfast the day he took charge. Being the incarnation of tact and a born mixer with a generous endowment of common sense, all was soon serene on the Great Eastern as it had been on the Long Island, where in his brief stay he had earned a reputation as a promotor of pleasant relations between the company, its employees and the public.

The Great Eastern Railway has 1,191 miles of main line as compared with the Long Island's 398 miles and in 1921 carried 78,634,101 passengers as compared with the Long Island's 75,506,045; but the latter

moved 5,572,679 tons of freight as compared with the Great Eastern's 4,359,692 tons. But for a substantially similar service in the same year the Great Eastern earned approximately three times the revenues of the Long Island. The Great Eastern also operates 5½ miles of canals, 15 steamships, 1,259 highway vehicles, 5 hotels, 1,489 acres of agricultural land, and 706 acres of urban and suburban land on which are 1,968 dwellings, affording the general a miscellaneous business experience which will come in handy in Canada.

The only really new thing encountered in England was the use of horses, 282 of them, in "shunting," which is what an Englishman says when he means switching.

The Great Eastern runs from London to Harwich, Lowestoft, Yarmouth, and Peterboro on the eastern side of the island. It was also running behind, which is the real reason why Lord Claude Hamilton crossed the ocean for a general manager.

Thornton began by making himself at home. He instituted daily staff luncheons in the American fashion. He organized golf, tennis, and cricket clubs for officers and employees and personally provided the prizes for numerous tournaments. He kept on calling in newspaper men and treating them just as if he had still been in America. They liked it. The early frost melted beneath the cheerful rays of his geniality to be succeeded by friendship and support. In a very short time Thornton found himself an extremely popular person.

### Brings Great Eastern Back

WITH so much achieved the process of gingering up things was relatively simple. The Great Eastern promptly came back and has been doing very nicely ever since.

Thornton had hardly got his chair warmed before the war began. All thoughts of electrification were laid aside indefinitely. Instead, almost from 11 p. m. August 4, 1914, the hour when England entered the war, the Great Eastern began taking precautions against air raids.

The Great Eastern, with its strong steamship connections, at once became one of the leading lines of military communication. Thornton was made a member of the committee of general managers which administered all the railways of the kingdom for the government. In 1916 Thornton was appointed, in addition to his other duties, director of inland water communication with functions extending to France, Egypt, and Mesopotamia.

In January, 1917, he was appointed honorary Lieutenant Colonel of the Engineering and railway corps, and a few weeks later was sent to Paris as assistant director general of railways with the rank of Colonel. Promotions followed rapidly until he had charge of army transportation on the continent with the rank of Major General. Here he was once more thrown into intimate association with his old schoolmate, J. A. McCrea, who as deputy director general of transportation had charge of the activities of the transportation corps in the advanced sections of the battle lines occupied by American troops.

During all this time, while he was discharging such important duties in the British army, General Thornton, to paraphrase "Pinafore," "In spite of all temptations to belong to other nations, he remained American, he remained A-mer-i-can." Not until the war was over did he become a British subject. As soon as he was eligible he was knighted, being gazetted Knight Commander of the Order of the British Empire. Mean-

while he had been made Commander of the Legion of Honor of France, an officer of the Order of Leopold of the Belgians, and had been awarded the American Distinguished Service Medal.

Such is the man who has taken charge of the destinies of the Canadian National Railways on a three-years' contract with the titles and duties of chairman of the board of directors and president, at a salary of \$50,000 a year.

Perhaps it would be more accurate to say that General Thornton has assumed charge of the destinies of the Canadian people. If he cannot pull the National Railways out of the hole, this little nation of fewer than 9,000,000 inhabitants will be buried alive under a mountain of debt. The government roads are not even earning operating expenses, the deficit on this account alone footing up \$10,000,000. Quite apart from operating loss, advances from the public treasury totaling \$112,632,154 were made in the fiscal year ending March 31, 1922, for some but by no means all railway deficits. Added to all this, other advances were made for purchases of other lines in 1922 that will bring the total shortage to be made up by taxpayers already swamped by war debts to quite \$200,000,000 for the year.

### There Is More to Come

STILL, this is not all. In addition to the \$100,000,000 a year required to cover the ordinary deficit, heavy capital outlays will be required to provide for a large share of the transportation needs of the west as the area of settlement spreads.

And there is more yet. The accounts of government operation that may be heard in talking with Canadian railroad men sound remarkably like the tales that may be dug out of dusty archives about the railroads



Sir Henry Thornton, on the right, and his long-time chum, Vice-President McCrea of the Pennsylvania

operated from time to time by various states in this country. Conscientious objections to paying railroad fare are as strong north of the international boundary as south of it. They tell of one train on the Canadian National carrying 118 passengers, of which 82 were riding on passes. And the fact that the applicant has had no railroad experience is no handicap whatever in landing a good railroad job provided he is shrewd enough to see his member of Parliament, or whoever it is that corresponds to the American boss, if you can believe what you are told in the Dominion. In short, a substantial portion of the Canadian public is alleged to regard the government railroads as a good thing provided for their delectation by a beneficent Providence. Under conditions that have grown up not even a trip to Reno would suffice to divorce government railroad operation from politics, if you can believe what you are told.

Under such conditions it is little wonder that it took the government four years to find the right man for the task of administering the national railways. Railroad executives of the outstanding capacity required simply wouldn't take the job when they realized what was involved, although salary was no object to the government. Perhaps that was fortunate, for at last General Thornton was induced to undertake what is about the most formidable task that any railroad executive ever faced.

In justice to the Canadians it should be said that they did not acquire their tremendous national railway system on purpose.

### Government Takes Over Road

FALLING off in the flow of settlers and arrested development of industry, due to the war brought the Canadian Northern and the Grand Trunk Pacific government aided lines, into difficulties. To protect the advances made to both roads the government took possession, acquiring the entire capital stock, and merged them into one system. In 1920 the Grand Trunk was found to be so deeply involved that the government took that road over, too. This brought the total mileage of the national system up to 22,114 miles, of which 1,363 miles are in the United States.

This great system spans the continent from Yarmouth, Halifax and Sydney in Nova Scotia, St. John in New Brunswick, Portland in Maine, and New London, Connecticut, to Prince Rupert and Vancouver on the Pacific, covering the area in between with a network of lines. The system includes a fleet of 66 cargo ships, 58,000 miles of telegraphs, an express delivery service and eight first-class hotels.

It is an interesting coincidence that both of Canada's two great railroad systems are now headed by former American citizens who have become British subjects and have been knighted for distinguished ability in railroad management, for Sir Thomas Shaughnessy, chairman of the Board of Directors of the Canadian Pacific, is a native of Milwaukee.

It may also be worth recording in this connection that exports of American railroad executives are looking up. Just before the appointment of General Thornton to the presidency of the Canadian National Railways was announced, William A. Webb, formerly general manager of the Missouri, Kansas and Texas Railway, sailed for Adelaide, Australia, to become chief commissioner of the state railways of South Australia. He is to be the actual manager of the system of 2,333 miles, which in 1920 amassed a deficit of \$2,733,550.

# Exporting Transportation

By FREDERICK SIMPICH

IN ALL the stirring annals of American export industries, no one achievement stands out more conspicuously than the romantic rise of the Baldwin Locomotive Works, now the greatest engine building plant in all the world. It is a word to conjure with, this name of Baldwin. Since that day away back in 1838, when indomitable old "Matty" Baldwin built and exported his first engine to Cuba, his now famous shop has turned out over 55,000 locomotives! In these eighty-four eventful years Baldwin engines have been put on the rails from Java to Jamaica—exported to fifty-six different foreign countries, colonies and commonwealths; away down in the Argentine forests a Baldwin agent lately ran across two old engines built and shipped to South America in 1884, 37 years old, but still in active service!

As in the marvelous development of our own country, so in the picturesque conquest of savage jungles and wild mountain regions overseas, Yankee-built engines have rendered amazing service to civilization. And, whether in China or India, on the Trans-Siberian, or Cape-to-Cairo line, or on the western front in France, probably no other one item of American exports has had so profound an influence on the economic and political destiny of nations. Wars have been won or lost, kingdoms have fallen, frontiers have been twisted and broken, the very map of Europe itself shifted and transformed, and old channels of trade, travel and migration changed and diverted, because of the use of locomotives and the steel rails they run on.

And 20,000 of the locomotives used abroad, and thousands of miles of track have come from the United States. Counting the hundreds of millions that foreigners have paid for Yankee-built engines, bearing in mind the additional vast sums paid for American rails, bridge steel, cars, and other equipment, and considering the prestige, commercial and political, that has come to us by reason of these sales abroad, you can see how tremendously this export of railway equipment has helped us to win the world's industrial leadership.

To see Baldwin's export office actually at work, to find out—for use in this story—something of their methods and policies which have helped them sell their engines overseas, I went lately to Philadelphia, out to that old, red brick building at "500 North Broad," a famous address now, known to every railway builder from Penang to Patagonia.

Here, working in his shirt-sleeves at a small desk in one end of a vast upper room that held a hundred other desks, a room as big and busy as the reporters' workshop at press time on a New York daily, I came upon F. de St. Phalle, vice-president of the "B. L. W." and head of its foreign sales department.

He's unique, this man St. Phalle, his

career a story in itself—an object lesson to any gloomy youth who still complains that only "pull" can land the big jobs. Born in France, migrated here, trained in overalls at a lathe in Baldwin's shops, an engineer officer in our army when needed, St. Phalle, at barely thirty-five, handles all the exports of the world's greatest engine works. And, whether he's peddling engines to the Poles,

about three jumps ahead of his interviewer's.

"A large number of customers, each giving us a small order, is the ideal condition in the locomotive business," said Mr. St. Phalle, "rather than a few customers giving large orders." . . . "It is in getting these small orders for engines and repair parts that salesmanship plays its brilliant part in our trade. This business is complicated and difficult to handle, and not many people are in it. So, by giving customers real service on their smaller requirements, there is a good chance to build up a steady and dependable trade.

"Our policy is to look after the smallest needs of the trade, *all the time*; then, in periods of depression, and when we most need trade, these customers will stick to us.

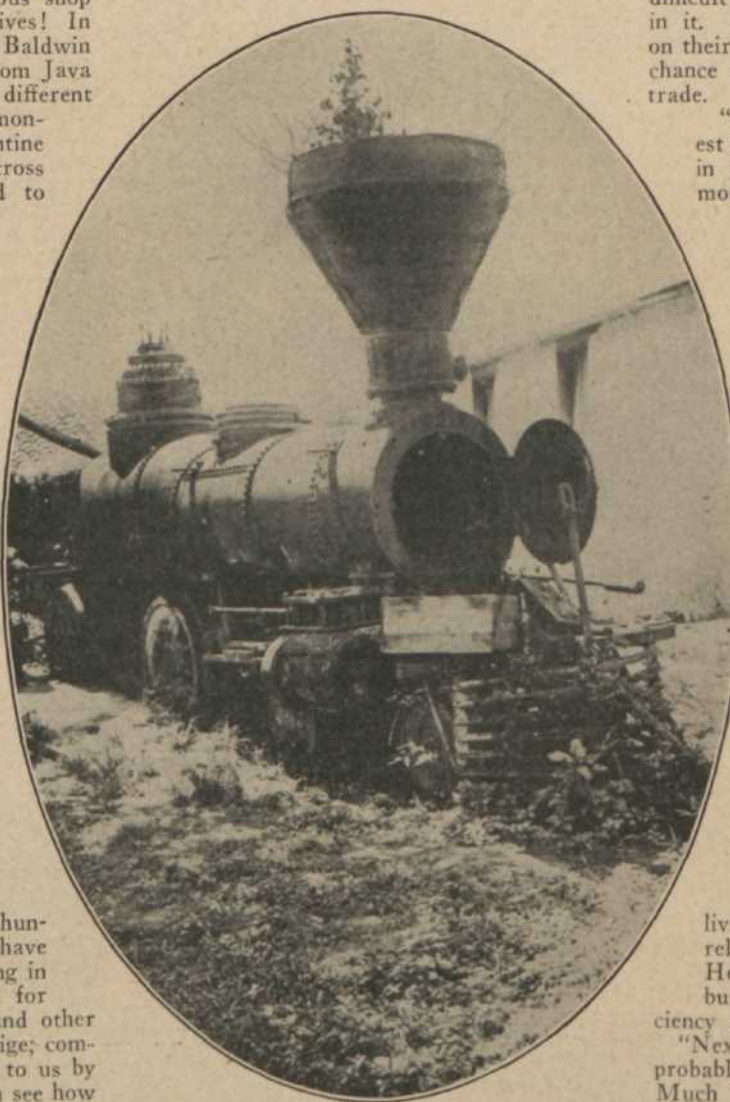
"There is really very little actual salesmanship employed when we book a big order, say for \$2,000,000 or more. Before such orders are placed, the buyers, whether governments or private concerns, always take every step they can think of to get consideration by different engine-building firms and try to buy as cheaply as possible. It rarely happens that any big order for locomotives is placed until all manufacturers have had a chance to bid. Price, and the builder's ability to deliver quickly and satisfactorily, usually determine who gets the contract. In hard times, price governs; in times of great activity, it is ability to deliver promptly.

"We often bid against the locomotive builders of England, Belgium and Germany—sometimes we get the contract, and sometimes we lose. The determining factors in all this overseas business are, of course, price, delivery, terms, financing, as well as our relations with the prospective customer. Here, to, the general reputation of the builder's product for mechanical efficiency plays an important part.

"Next to the United States, Great Britain probably exports the most railway equipment. Much of this has of course gone to help equip the roads built in India, South Africa, Australia, Canada, and other British colonies or dependencies. The best market for Baldwin engines has really been in South America. Brazil particularly, because of her amazing development, which has been free from interruption by wars or revolutions, has been an excellent customer. But we've also sent about 1,500 engines to Cuba.

"China, Russia, India, Africa, Latin America—they're all good customers," continued Mr. St. Phalle, "because practically all the world's engines—of which probably 100,000 are in use today, not counting small plantation and industrial engines—are built here in the States, or in England, Belgium, France, Italy, or Germany.

"One great advantage America has over European competitors in this trade is that she can build and deliver locomotives so much more quickly. No country, except the United



Here's a queer souvenir of our early days of exporting locomotives. Baldwin engineers found this old wood-burner in South America with a young tree growing up through the smoke-stack

or down in Brazil where 1,500 Baldwins have been sold, he talks engines in the language of the country, being blessed with that greatest of all assets to the foreign salesman, the gift of tongues. It's a peculiar business, too, this locomotive export business, highly sensitive to political unrest and economic changes—a business that calls for the closest scrutiny of public affairs in foreign lands. And few men in America follow more closely the world's economic and political problems and their bearing on the market for engines than does this studious, serious-looking yet amiable man whose keen mind was always

States, can build locomotives on thirty to sixty days' notice."

"I think the worst is over in Russia," replied Mr. St. Phalle in response to my query. "Of course, Russian railways have been disintegrating practically since 1914. From all reports, however, there remains a nucleus of old and faithful employees who have saved more from the wreck than might have been expected. Furthermore, up to the present time, disorganization in other branches of business in Russia has been so great as to relieve the railways of most of their burden. Traffic now is so light that the railways, bad as they may be, are able to handle it. The movement of trains is comparatively steady, and their speed is fair. Of course, when business resumes in Russia, her railway capacity will be quickly overtaxed, and help from the outside world will be necessary. Then Germany, England, Belgium, France, and the United States will probably each play a part in railway reconstruction, corresponding to their resources and capacity."

### Lending the Customer Money

**S**PEAKING of our loans to foreign countries and their relation to railway building, Mr. St. Phalle said: "It doesn't make much difference whether such loans are specifically intended for use in railway improvements or not. They always relieve government finances and much of a government's money, especially in certain of the more backward countries, goes into railway expenditures—even if indirectly. In 1920 the Baldwin Works financed the Republic of Colombia to the extent of \$2,000,000 for the purchase of railway equipment."

And, wherever Yankee engines go, almost invariably a market is made for rails, bridge steel, tools, oil and miscellaneous equipment. Skilled American workmen usually go, also, to help set up the new engines and teach the natives to run them. It is undoubtedly true, too, that our vast export of railway equipment, serving favorably to advertise America as a manufacturing country, has greatly boosted sales of other machinery and supplies in no way related to the railway business.

Now and then quaint or amusing letters drift into Baldwin's from their agents overseas, relating curious railway adventures in the backward regions of the earth. Lately the traffic superintendent of the Bengal Northwestern, in India, got a note from his

native agent at the Poparia station, complaining that crocodiles lurking about the depot were a menace to passengers. Written in that odd English often penned by Orientals, it was worded as follows:

Resident Engineer, Mansi, saw other day a crocodile here, in front of station borrow pit which contains water to a height 10 feet and is broad 40 feet; connected it is, become now only with Kosi river flood water. Two small and one their mother crocodile lie in it.

Last night one big crocodile came on the station line at north end of platform and was lying. Pointsman Kunja Mali was going for reception of 40 down that he narrowly escape of its attack. Traffic inspector saw some days ago the crocodile injury to a kid but could not shot for it went under the water.

This is of course dangerous to public passengers who remain at station, during night unconsciously sleeping down on platform as well as to staff and their family and children. *Please arrange.*

Like men, horses and guns, in war-time engines and railways, of course, play their big parts. In our own Civil War, for the first time on any big scale, railways figured as a prime factor. When Kitchener made his famous advance on Khartoum, it was Yankee-built engines, Baldwin engines, that helped him move his men and guns. In the story of the World War, the conflict that Joffre once called a "railway war," no one production feat rivals the astounding performance of Yankee engine builders. In eighteen days, in November, 1914, the Baldwin Works designed, built, boxed and shipped twenty tank engines for the French!

When you know that in the attack and defense of Verdun, for example, 60,000,000 shells, representing 3,000,000 tons of steel, were expended in thirty weeks, and that railways moved the greater part of this material up to the firing lines, you can get an idea of what locomotives mean to modern armies. Sir Guy Granet, when in control of railways for the British War Ministry, once told a Baldwin official that if it had not been for the prompt and efficient deliveries of Baldwin engines, some of the accomplishments of the British army would have been impossible.

In this short story only bare mention of

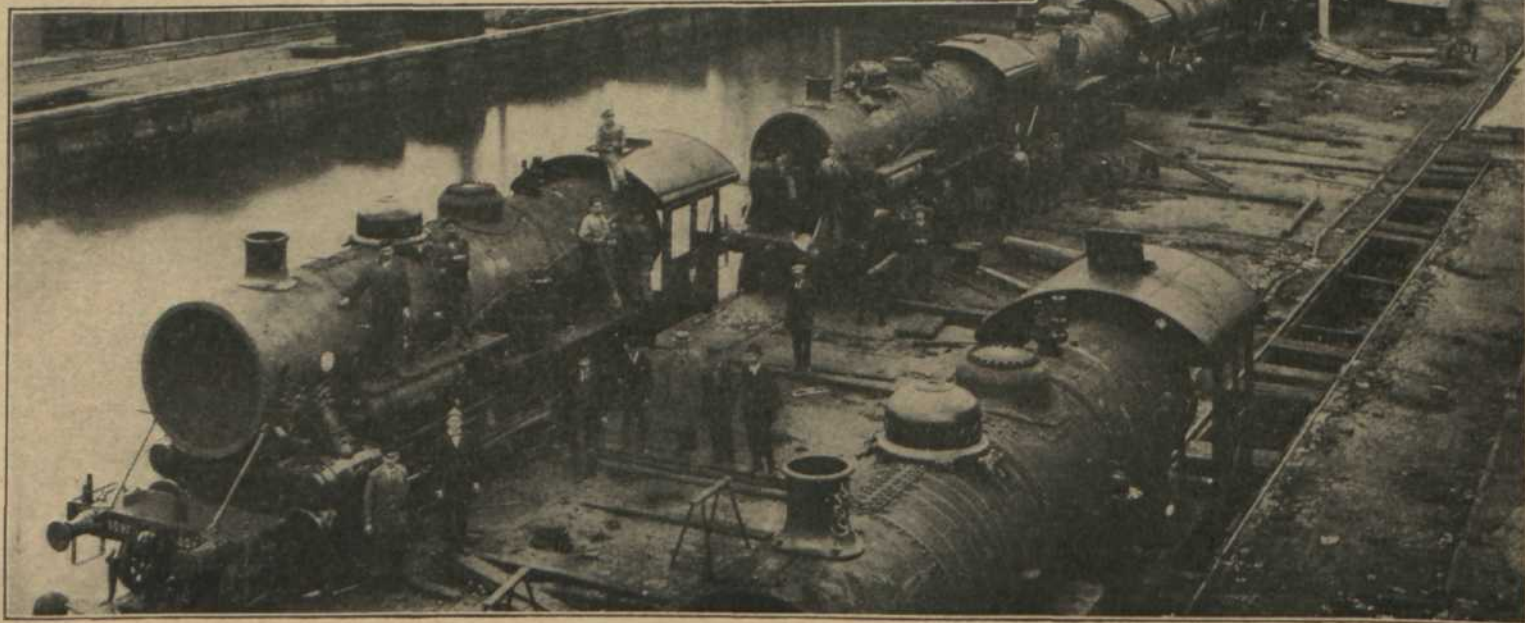
Bolsheviks set a price on the smokestacks of these American locomotives, in the yards of the free port of Danzig, undergoing repairs by Polish workmen

Baldwin's war-time achievements is possible. Briefly, however, they built and delivered to Uncle Sam and his allies 5,551 engines of various types, as well as 2,200,000 rifles, over 6,000,000 shells, besides many giant gun-mounts, cartridge cases and miscellaneous items. So intense was their organization that by Armistice Day their program called for the completion of 300 "Pershing" engines a month—10 complete engines a day!

### An Export Order from the U. S.

**T**HE largest export order the Baldwin Works ever got came from Uncle Sam, during the Great War, and called for 1,500 locomotives. "We also sent the Russian Government 850 engines; 350 went to the Chinese Eastern Railway, and after hostilities ended we sold 150 more to Poland. Curiously enough, when the Bolshevik drive was on, the Reds offered a reward of 1,500,000 rubles to the man who'd first capture one of these Baldwin locomotives! . . . Generally speaking, however, the Great War did not make the locomotive business much better. The big profits made when intensive production was at its peak had later to be spread over a period of depression. War doesn't always mean sales. There's war in China now, but sales have stopped, just as they stopped in Mexico during the years of revolution.

"Yet China in future will undoubtedly be a great market for American railway equipment. She has 400,000,000 people and as yet only about 7,000 miles of railway, as against 110,000,000 to over 250,000 miles of railway in the United States." In China, engineers say, railroad builders have had to battle not only with the superstitions of a people who didn't want the graves of their ancestors



disturbed but also to do actual physical battle, even as the Union Pacific workmen had to fight the Sioux in early days. In Tientsin, years ago, they told of one old Tao-tai or district governor, whose hostility led to a curious adventure.

When a work train, manned by English foremen, pushed its track-laying into his province and he heard about a magic iron horse that ate fire, he gathered his bow and arrow men and sallied out to see this monstrous creation of the "foreign devils." "Stop it! Stop it now!" he demanded. "Go on and build the railroad, if you must, but pull the fire out of that engine and haul it decently with mules, as all things on wheels were meant to be hauled."

To please him, the tactful English drew the fire, put a string of mules in front of the "hog" and hauled it a few yards—till the pompous governor calmed down and withdrew. Then they fired up again and resumed work. Again the Tao-tai returned, attacked and drove off the work-train crew and disposed summarily of the evil beast that ate fire. He had his coolies dig a great pit beside the track and roll the engine into it;

then they covered it up! And for months, they say, a weary consul worked to smooth over the rumpus and get permission for the concessionaires to dig out their engine and fire it up again!

All over the world, wherever railways run or are planned, Baldwin's men are on the job. Twelve branch offices, to say nothing of agents and scouts, are scattered over the map. Orders are taken for every conceivable size and type of engine, burning everything from coal, oil, and briquettes to wood, as well as internal-combustion types, which are built for use on plantations and around factories and yards.

The big Baldwin factory at Eddystone, on the Delaware just below Philadelphia, makes it easy to load locomotives directly on to steamers. One big engine, built lately for the Argentine, was assembled at the plant and lifted bodily on to the deck of a steamer. The unloading at Buenos Aires took only 55 minutes, and in less than one day the engine was coupled to its tender and ready for service. This giant Eddystone factory employs 21,000 men and now has an annual capacity of 3,000 complete engines, as well as

much other transportation equipment. Distinguished foreigners from every land have visited here and marvelled at the magnitude and capacity of this Yankee enterprise.

If you're a movie fan, and happen in at "500 North Broad" you'll find a "little theater" all equipped for your entertainment. Its specialty is railroad films. I saw a picture, illustrating railway conditions in Roumania far more graphically than any engine salesman could have described it in a written report. This film showed how freight and passengers are handled; you saw at once how badly Roumania needs railway equipment when the picture revealed crowds of passengers, wrapped in blankets, asleep on top of box cars. Another film showed twenty-five new Baldwin engines, all coupled together and being hauled from Philadelphia to California, an order lately filled for the Southern Pacific. As we quit the theater, and came back into the big sales-room, St. Phalle grinned and pointed out a newcomer. "There's our agent from India," he chuckled; "he's the man that sent in the funny letter about the crocodiles."

# Human Nature in Business

By FRED C. KELLY



**FRANK B. GILBRETH**, industrial engineer, declares that much fatigue in business offices might be saved if typewriters were painted white instead of black. This is his explanation: "The pupil of the eye of the typist is constantly trying to adapt itself to that part of the retina which is overstimulated or understimulated by black and white objects, viewed simultaneously. Consequently anyone who works continuously on a black and white object will have the pupil of his eye alternately contracting and expanding until excessive fatigue sets in. This is so apparent that it can actually be seen by an observer with the naked eye."

Carrying the idea farther, Gilbreth found also that where workers are folding handkerchiefs, those handling handkerchiefs with mourning borders get much more tired by three or four o'clock in the afternoon than when working on all white handkerchiefs. Switching the border to and fro in front of the eye, as the handkerchief is folded, is enough to make the pupil of the eye get larger and smaller with consequent fatigue.

Similarly, says Gilbreth, machinery and work places in a factory are sometimes arranged parallel to windows when a better plan would be at right angles to the windows, allowing the light to come in sideways instead of having the work seen only in silhouette. Sometimes, however, when machines must be poorly placed, the wearing of a white jacket or a white shirt reflects enough

additional light to make an important difference in the quality of work.

**I**N CLEVELAND one night recently, I accepted both dinner and lodging in the apartment of Col. Leonard P. Ayres, statistician-extraordinary and vice-president of the Cleveland Trust Company. After I had inserted myself in striped pajamas and crowded in beneath my host's immaculate and mollifying coverlets, Colonel Ayres personally came in, sat on the edge of the bed and hospitably permitted himself to be engaged in conversation. We chatted about the days when he was a professional bicycle rider and a good bicycle cost \$125. Suddenly Ayres was not merely the genial host but the penetrating statistician.

"Did you ever stop to think," he asked, "that at the present prices of Ford cars, a Ford sells for about 15 cents a pound? On that basis an ordinary 24-pound bicycle, such as we used to ride, would cost \$3.60."

**A**FTER that I sat up in bed wide awake and asked him many questions about automobiles. The most startling figures I learned were these: Of the entire income of the United States, amounting to 64-billion dollars, one-eighth is spent on automobiles, and one-eighth of this or, roughly, one billion, goes for gasoline alone. This billion a year for gasoline is about the same as the total expenditure in the United States for education.

**I**T IS possible to tell much about the relative quality and dependability of various automobiles on the market by the way they figure in the Used Cars For Sale advertisements. One may well be suspicious of a make of car the 1922 model of which is too often advertised at a bargain. If a car that is new is all that it should be, why should one be obliged to sell it at too big



a sacrifice? This recalls a delightfully ingenuous advertisement that I recently saw in a Washington newspaper: "For sale, cheap: late model — roadster; or will trade for any other make of car."

**A**UTOMOBILE manufacturers are able to buy tires at a price below that accorded to tire agents. Now come tire manufacturers who complain that a number of prosperous automobile concerns are secretly reselling tires to tire agents at a profit.

One tire manufacturer who has employed a number of detectives to help learn the facts declares that the practice is widespread.

**A**FRIEND of mine said to a banker: "You're in the money lending business. Yet you charge a fee of 2 per cent for making a loan at the established rate of interest. Don't you think it's unfair to penalize me for trying to be a customer? If you don't want to lend money, why don't you go into some other line of business?"

"It may be a little unfair," smilingly admitted the banker; "but what are you going to do about it?"

"That," retorted the customer, "is what the express companies used to ask. Parcel post was the answer. Then the saloons inquired: What are you going to do about it? And the answer was prohibition. In the long run, banks, barring an occasional exception, will not be unfair. They can't afford to be."

# The NATION'S BUSINESS

Published by the Chamber of Commerce of the United States

MERLE THORPE, Editor

Washington

February, 1923



## The Significance of the Gypsum Case

**C**ONSENT DECREES do not necessarily set out the law. They are not formulated by the judges, who alone are entrusted with the duty of determining the application of statutes. On the contrary, they are prepared by the contending parties for the purpose of presenting the terms upon which their clients will settle their litigation, and as likely as not they incorporate some concessions on both sides.

To be sure, when the United States is one of the parties engaged in litigation, the terms which its lawyer, the Attorney General, will accept as a condition to laying down the cudgels may have some general significance. They may serve to indicate something about the interpretation he at any rate places upon the statutes he enforces. No light may be shed upon what the courts would say but there may be an indication about what the Attorney General is thinking.

In this limited way there is interest in the consent decree filed in New York on January 4 by way of ending the suit under the Sherman Act brought by the Department of Justice against the Gypsum Industries Association. The decree dissolves the association and forbids the persons who were its members from forming another body unless it keeps within bounds described in the decree.

In the first place, the new body is to be a corporation. In the second place, its objects are to be confined to advancing the use of gypsum through research, publicity, advertising, and the like; to dealing with engineering and trade problems pertinent to the industry for the purpose of advancing the use of gypsum; to carry on educational work through fellowships in universities, etc.; to maintain traffic and credit bureaus, and to deal with improved methods of operation of mines and plants, including labor, insurance and accounting.

If it is suggested that in places the language is not always clear, it can only be answered that the phraseology of the decree has been followed. If the gypsum manufacturers wish to use such a corporation they will undoubtedly be able to get ambiguities clarified; because in case of doubt, or if they wish to undertake activities other than those clearly within the description, they presumably will consult the Attorney General and obtain his opinion in advance. Thus, there may be some compensation in being bound by a consent decree.

## The Near-Tragedy of the Jute Bag

**J**UTE BAGS sound prosaic, and they are exactly as they sound, but they are very essential articles.

After the new tariff law went into effect, the Treasury Department, by way of recognizing the importance of jute bags, decreed that each individual bag should be plainly marked with the name of the country where it originated. "Made in India" threatened to be a placard spread over the land with the omnipresent "gunny" sack.

If there was any other reason for the order, the Treasury kept it quiet. Certainly the reason would not seem to be found in the new tariff law; for on this subject the new law is substantially like the old.

Reason or no reason, the order caused a furore. Refiners of Hawaiian sugar, for instance, get the sugar in jute bags,

which have been imported into Hawaii from India, by the bale, and turn the bags inside out before using them as outside covers for sacks of refined sugar. They had visions of their sugar going out over the land labeled for all to see "Made in India," and protested. The Treasury countered by pretending to be liberal, by allowing the wording to read "Container made in India."

But that was not acceptable. There remained several important facts. The cost of marking the bags would be out of proportion to their value. The marking would destroy much of their value for second, third and subsequent uses.

On December 29, the Treasury yielded. The jute bag, of manifold humble uses after it has left its sack of sugar, will not blazen in every byway and backyard of a good section of our country the words "Made in India." The bale in which the bags arrive in the first place, however, will as of old bear its proper legend, disclosing that the contents are from the mills of India.

## Government Shipping Troubles Universal

**G**OVERNMENT SHIPPING causes troubles wherever. Under war pressure countries undertook to be ship-owners. Ships appear to be temperamental affairs, and an incalculable source of expense for the uninitiated.

Portugal created a shipping board and went in for government ownership. The Portuguese body is now faced with a vast number of claims presented from a good part of the ports of the world. To make matters worse, an official absconded with some money. It is now solemnly recorded that the documents officially collected to prove his rascality weigh 50 pounds!

## Taxation Not the Least Popular

**T**AXATION is not a subject to which the popular mind takes very kindly these days. If any evidence were needed, it was pretty well supplied in the November elections. Amendments to state constitutions with respect to taxes were voted down almost with unanimity, and without very much discrimination. It seemed enough that something about taxes appeared in the language; thereupon, the vote was adverse. This was the case even where the proposition had so little advance opposition that no arguments were formulated against it.

## Courts, Again, Protect Business Secrets

**N**EW-GATHERING EXPEDITIONS by the Federal Trade Commission are not favored by the Court of Appeals in the District of Columbia. During the first week of January this court handed down its opinion in the proceeding through which the right of the commission to require reports of production, production costs, etc., of steel companies is being tested. A similar case respecting the power of the commission to compel coal mines to supply it with data is waiting the final determination of the steel case.

The court's point of view was that there was no charge of unfair competition or of violation of any law. Besides, the commission did not purport to be investigating the relations of the steel companies to interstate commerce. There seemed to be merely a hope that something of public interest would be obtained, for publication, or possibly subject matter for future legislation by Congress.

There would consequently appear to be infringement of private rights, in the court's opinion; for it said,

"Common justice would seem to demand that before the business methods pursued by a corporation or an individual should be investigated, the party should be apprised, either by a formal charge or by notice of the extent of the proposed investigation in order that a day in court may be accorded."

The Trade Commission had borne down in its argument before the court upon the Supreme Court's decision upholding

the Packers and Stockyards Act. The Supreme Court perceived commission men operating at stockyards as acting in connection with a great movement of cattle interstate. The commission seems to have argued that a steel company drawing ore and other material from distant states and shipping a large part of its product into other states was similarly incidental to a great volume of interstate traffic. This analogy the court said it could not perceive. Under its decision, therefore, the Department of Agriculture may call upon stockyards and packing companies for reports for which the Trade Commission may not ask steel companies.

### Our Journal of Inventive Genius

**M**OUSE TRAPS were selected by a philosopher as the subject for his illustration of the esteem of inventive genius. If he were alive today he would probably be a constant and thoughtful reader of the *Patent Office Gazette*, one of the most matter-of-fact publications of our time.

In a single issue he would observe, not only mouse traps, but contrivances for pretty much the whole range of modern activity. "Fishing tools" to use in oil wells appear next to live-bait boxes for the real disciples of Isaac Walton. Apparatus for making petroleum increase its yield in gasoline stands next to a new powder puff. A shoe heel and a dish-washer go together. A car-dumper which laughs at 50 tons and a sure means of catching cockroaches face each other. Out of the great collection of developments of ingenuity appearing week by week in the severe type of the *Patent Office Gazette* is likely to come much of the progress of the future.

### Court of Claims Still Fighting the War

**T**HE WAR is still a reality in the United States Court of Claims. That is where suits against the United States government center. The first case against the government and growing out of war conditions was filed in May, 1918. In the Court of Claims there are pending almost 800 cases, predominantly claims rising out of the war, and they involve upwards of \$300,000,000. As many of these suits are in the nature of test cases, a much larger number of cases depends upon them and proportionately larger amounts are thus involved.

In the cases which have been decided the Court of Claims has usually been more liberal than government officials but has not granted the entire sum claimed. For a vessel requisitioned by the Navy, for example, the Navy offered \$8,000 a month as compensation and the court allowed \$12,000 as equitable.

Some contracts for gun mounts, cartridge cases, vessels and other articles did not contain cancellation claims. As these contracts were cancelled by the government after the armistice, they have given rise to claims for anticipated profits upon the uncompleted portions. After some hesitation, the court has ruled against such claims, and one of the cases,—based on a contract for 250 gun mounts and sights, none of which had been delivered before the contract was cancelled,—has been taken to the Supreme Court, where there may be a decision next spring.

Two cases testing powers of the war-time Fuel Administration have also gone to the Supreme Court from the Court of Claims. In one, an operator had such costs that his sales at the prices fixed for coal resulted in losses. He asks the amount of his loss. In another case, the Fuel Administration, after fixing the price higher than the price in a contract between the operator and a railroad, refused to let the operator sell for more than his contract price. He, too, sues for the difference.

The filing of cases in the Court of Claims on account of war situations may continue into 1925. It is possible the echoes

of the war will still be heard in 1930, through litigation over amounts due from the government.

### A Move Toward Tax Decentralization

**T**AX DECENTRALIZATION is getting some recognition in the Treasury Department. Upon recommendation of the Tax Simplification Board the Bureau of Internal Revenue is now planning to test in a tentative way the plan of giving taxpayers a chance to have their cases heard without coming all of the way to Washington. Hearing of controverted points about federal taxes, under this tentative plan, will be made possible at some central points at a distance from Washington, and at least nearer the homes of the persons concerned.

### Mr. Spencerian, Centenarian

**T**HE STEEL PEN has had a centenary celebration. Its production in quantity began in Birmingham, England, in 1822.

The pioneer manufacturers had a tussle with the quill pen, which died hard, exactly as the quill pen presumably had no easy task originally in proving its superiority over the reed.

### Legislatures and Insurance Premiums

**I**NSURANCE continues to afford knotty problems for legislatures and courts. Louisiana undertook to levy a fine upon anyone in the state who obtained insurance with a company not authorized to do business in the state, and was stopped by the United States Supreme Court.

Arkansas then tried its hand. It assessed a Missouri corporation doing business and having property in Arkansas with a tax of 5 per cent of the premiums it paid to an insurance company which was "not admitted." The contract of insurance was made in St. Louis.

In December the Supreme Court remarked laconically that Arkansas has no power to regulate what a Missouri corporation does in Missouri, and refused to permit the tax on the ground it was unconstitutional.

### Pull

**F**ORCEFUL personalities still find that the long road is a sure road to the top. Space at the summit of all things has been widely advertised through a succinct copybook maxim, now trite and threadbare. The way up may be long or short. The youth of today is inclined to glorify any short cut, and to exalt "pull" as the sovereign power in making the ascent.

Let him so-minded turn for safer guidance to the careers of John G. Shedd, James Simpson, and John McKinley—all of Marshall Field & Company, and F. Edson White of Armour & Company. On January 2 at the age of 73, Mr. Shedd stepped down from the presidency of his company for rest. Mr. Field once referred to him as "the greatest merchant in the world." He began work for the company when 17 as a \$10-a-week clerk. He is succeeded by Mr. Simpson, formerly vice-president, whose place is taken by Mr. McKinley. Mr. Simpson and Mr. McKinley entered the business as office boys—office boys extraordinary. Mr. White is slated to direct the far-flung activities of the Armour packing interests with the retirement of J. Ogden Armour. Mr. White when 17 got a job on the killing floor of a Peoria abattoir. Five years later he went to the Armour plants in Chicago as an inspector in the car route department. He climbed steadily to the recognition now linked with his name.

In every case, no stage magic, no hokum, no tricks, no mystery in the success of these men—just hard licks early and late, faith in themselves and their fellows, faces to the front, and a strong pull with their hearts in it, the only "pull" that carries a man or a business forward and upward.

# Government Aids to Business

## New Surveys of Some Atlantic Ports

The ports of Portland, Maine, and Boston have been studied by the Board of Engineers for Rivers and Harbors of the War Department. The board has presented its findings with text, maps, and illustrations in the first two volumes of a series on ports, which will have thirty volumes when complete.

These are the first studies of the facilities, services, charges, and traffic conditions at the ports of the United States, and upon the rail lines radiating from the ports, which have ever been made in sufficient detail to give a comprehensive view of the physical and economic factors affecting the utilization of American ports.

The volume, origin, and destination of commerce passing through the ports are carefully presented with tabular views, maps and charts. Copies of the port studies are available from the Superintendent of Documents.

## "Movies" Made to Tell of Business

A series of industrial motion pictures designed to show the processes by which American goods are made is now available to trade bodies,

universities, civic organizations, clubs, churches and theaters on application to the Bureau of Foreign and Domestic Commerce, Department of Commerce, Washington, D. C. The films will be loaned free of charge except that the necessary postage be paid by the user of the films.

Industrial organizations cooperated with the Bureau of Mines, Department of the Interior, and the Bureau of Foreign and Domestic Commerce in producing the pictures. The Government has been at no expense whatever in making these films other than the salary and incidental expense of the single engineer who supervised the production. Much of the detail is exhibited through animated photography, which livens the action while neglecting none of the things essential to a complete understanding of the subject.

The preparation of the films is under the direction of M. F. Leopold, an engineer of the Bureau of Mines, now assigned to the Bureau of Foreign and Domestic Commerce under a cooperative arrangement between the two bureaus.

Chambers of Commerce have been quick to make use of the films, and the possibilities of their exhibition through such channels are suggested by the plan of the Rochester Chamber of Commerce to show some of the pictures in nearby towns and cities as a part of its campaign to acquaint business interests with the growth of important American industries. The exhibition of the pictures selected by the Rochester Chamber in the communities which it plans to reach with the films will require two months.

The films now available are:

**The Story of Coal** (3 reels).—(Made in cooperation with the National Coal Operators' Association.) A trip is made through the mine in a mine car, and the views on the screen are such as one would observe while riding in the car. The method employed in mining and blasting coal is depicted, as well as the loading of the mine cars, the transportation of the coal underground and the placing of the loaded

cars on the cage. The unloading of the mine cars at the surface, and the sizing and cleaning of the coal on the shaker screens and conveyor tables are also shown.

**The Story of Petroleum** (4 reels).—This picture was made in cooperation with the Sinclair Consolidated Oil Corporation and shows prospecting, drilling, operation of wells, transportation, refining and distribution.

**The Story of Sulphur** (2 reels).—Shows operations of the Texas Gulf Sulphur Company; the sinking of the well and the pumping of sulphur is shown in detail. The 100,000-ton blocks are broken up by blasting preparatory to shipping by rail and water; loading and community scenes.

**The Story of Ingot Iron** (3 reels).—Shows the process from pig iron to rolling-mill operations at the plants of the American Rolling Mill Co.

**Saving Coal at Home** (1 reel).—(Made in cooperation with Associated Pipe and Boiler Industries.) This picture emphasizes in an interesting and popular way the advantages of covering domestic heating pipes with insulation.

**The Story of Asbestos** (4 reels).—(Its production and manufacture are shown by the operations of the Johns-Manville Company.)

**The Story of Rock Drilling** (3 and 4-reel copies).—(Made in cooperation with the Sullivan Machinery Company.) This picture shows how various types of drills are used in various mining operations; reel No. 1 in iron mining; reels Nos. 2 and 3 in the granite industry, and No. 4 in the new 10-mile canal at Niagara Falls, which is being constructed by the Hydro-Electric Power Commission of Ontario.

**The Story of Abrasives** (4 reels).—(Made in cooperation with the Carborundum Company.) Shows the generation of power at Niagara Falls, its utilization for the production of carborundum (silicide of carbon) and aloxite (aluminum sesquioxide) and finally the numerous interesting and important industrial operations that are performed with the aid of the abrasives thus manufactured.

**Mexico and Its Oil** (4 reels).—It shows the early attempts to mine petroleum and the present-day operations of the Sinclair Consolidated Oil Corporation in Mexico, including drilling, storage and transportation by pipe line and tank boat. The film is tinted.

**"The Modern Goliath" or The Story of Heavy Excavating Machinery** (4 reels).—This film shows steam and gasoline operated shovels made by the Bucyrus Company with buckets varying in size from 1½ to 8 cubic yards and includes rail track, caterpillar, tower and drag-line equipment.

**Oxygen, the Wonder Worker** (4 reels).—Shows the methods of preparing oxygen and acetylene and the remarkable work done by the oxy-acetylene torch in cutting and welding the metals.

**The Story of an Electric Meter** (3 reels).—(Made in cooperation with the Sangamon Electric Company.) Shows method of manufacture and how it measures our electric current.

**The Story of a Watch** (3 reels).—Made in cooperation with the Illinois Watch Company and shows the making of a watch.

**The Story of an Automobile** (5 reels).—Made in cooperation with the Studebaker Corporation and shows the making of an automobile.

**The Story of Compressed Air** (3 reels).—Shows the method of compressing and the operation of many machines using compressed air as a source of power.

**Water Power** (3 reels).—(Made in cooperation with the Westinghouse Electric and Mfg. Co.) Shows the method of using the energy of falling water in ancient and modern times. It makes clear the operation of the turbine

connected to an electric current generator and the transmission of the current at high voltage over long distances.

**Transportation** (2 reels).—(Made in cooperation with the Westinghouse Electric and Mfg. Co.) Shows methods of transportation, beginning with the sledge drawn and pushed by slaves to the high-powered electric locomotive.

**The Story of a V-Type 8-Cylinder Motor Car** (4 reels).—Made in cooperation with the Cadillac Motor Car Company.

**The Story of a Valve-in-Head Motor** filmed in cooperation with the Buick Motor Company.

## A Business Guide to Latin America

The "Commercial Travelers' Guide to Latin America," by Ernst B. Filsinger, published by the Department of Commerce, is a handy compendium of useful information for salesmen in the West Indies, Mexico, and Central and South America. This guide is presented in two sections, and contains 734 pages of text and maps, together with a large separate map of South America.

The first part of the book gives space to salesmen's equipment, wardrobe, transportation details, suggestions for procedure on arrival at destination, banks and hotels, documents needed, taxes and restrictions on travelers, health precautions and similar subjects.

The second part contains information for canvassing Latin America, with comprehensive descriptions of the several countries. Every city and market of importance is listed with information as to its characteristics, trade regulations, license fees, and routes by which to reach it, and advice is given for thoroughly ascertaining the business possibilities in each community listed. The guide is durably bound with stout flexible covers.

It may be obtained for \$1.25 from the Superintendent of Documents, Government Printing Office, Washington, D. C., or at any of the District or Cooperative offices of the Bureau of Foreign and Domestic Commerce.

## First Hand Reports of the World's Needs

The Department of Commerce has undertaken to supply American exporters with current information on what the world wants to buy. Specific inquiries concerning American goods are received at the Department of Commerce, and information covering these inquiries is then mailed to the branch offices of the Bureau of Foreign and Domestic Commerce throughout the country. Lists of these trade opportunities are prepared for the newspapers, and they are released every week for the use of Monday morning papers to obtain simultaneous publication in all parts of the country. Included in these published lists are the commodities or articles desired abroad, together with the information on file for each item in the branch offices. To obtain the details it is only necessary for American manufacturers or exporters to apply to the nearest office of the Bureau, giving the number or numbers of the inquiry or inquiries in which they are interested—for example, under Italy might be listed "4715 Automobile supplies," which indicates that under the number 4715 is filed the information relating to American automo-

bile supplies desired in Italy. The branch offices of the Bureau are located at:

AKRON—Chamber of Commerce.  
ATLANTA—Chamber of Commerce Bldg.  
BALTIMORE—Export and Import Board of Trade.  
BOSTON—1801 Customhouse.  
BRIDGEPORT—Manufacturers Assn.  
CHATTANOOGA—Southern Ry. System.  
CHICAGO—1424 First National Bank Building.  
CINCINNATI—Chamber of Commerce.  
CLEVELAND—Chamber of Commerce.  
COLUMBUS, OHIO—Chamber of Commerce.  
DALLAS—Chamber of Commerce.  
DAYTON—Chamber of Commerce.  
EL PASO—Chamber of Commerce.  
FORT WORTH—Chamber of Commerce.  
INDIANAPOLIS—Chamber of Commerce.  
LOS ANGELES—Chamber of Commerce.  
MILWAUKEE—Assn. of Commerce.  
NEWARK, N. J.—Chamber of Commerce.  
NEW ORLEANS—214 Customhouse.  
NEW YORK—734 Customhouse.  
NORFOLK AND NEWPORT NEWS—Hampton Roads, Maritime Exchange.  
OMAHA—Chamber of Commerce.  
PENSACOLA—Chamber of Commerce.  
PHILADELPHIA—929-930 Witherspoon Bldg.  
PITTSBURGH—Chamber of Commerce.  
PORTLAND, OREG.—Chamber of Commerce.  
RICHMOND, VA.—Chamber of Commerce.  
ROCHESTER—Chamber of Commerce.  
ST. LOUIS—1210 Liberty Central Trust Company Building.  
SAN DIEGO—Chamber of Commerce.  
SAN FRANCISCO—306 Customhouse.  
SEATTLE—515 Lowman Building.  
SYRACUSE—Chamber of Commerce.

Persons and organizations interested in grain exports from the United States may now have the benefit of official statistics on application to the Bureau of Foreign and Domestic Commerce. Statements to show the chief features of the foreign grain trade of the United States will be issued weekly to include the grain movements at 18 principal ports—six on the Atlantic coast, 4 on the Gulf coast, 3 on the Pacific coast, and 5 on the Great Lakes. The weekly statements, as well as those for accumulated periods, will be available every Monday.

### Ways of Saving Natural Gas

A natural gas manual for the home has been published by the Bureau of Mines under the designation of technical paper 325, which is obtainable from the Superintendent of Documents, Washington, D. C., at 10 cents a copy. The paper suggests the conservation of natural gas through its efficient use for heating, cooking, and illuminating. The important gas fields are confined to a few states, the bureau says, and only about 11,000 square miles, or less than one-half of 1 per cent of the country's area, has produced natural gas. Companies which supply natural gas, and their customers will find in the manual pertinent suggestion toward preventing waste of gas.

Savings of \$3,000,000 a year are possible in the brass furnace industry, the Bureau of Mines represents, through the complete substitution of electric furnaces for oil-fired and crucible types. The results of the bureau's investigations throughout the country are presented in Bulletin 202, "Electric Brass Furnace Practice." The Superintendent of Documents can supply copies of this bulletin at 50 cents each. Apart from its important place in the conservation of fuels, the bureau holds that use of the electric furnace results in cooler and cleaner working

conditions, the elimination of much hard manual labor, and the avoidance of zinc fumes.

The quest for new oil lands is still active and persistent. Frank Reeves, of the Geological Survey, has made a study of the Ranger field in Texas, and his observations are now available to the public in Bulletin 736-E. Part of the area covered by the report is undrilled. Mr. Reeves recommends drilling at certain places. Three of the interior "salt domes" in Texas—the Brooks, Steen, and Grand Saline—are considered in Bulletin 736-G, which has also been published by the Geological Survey. This bulletin should prove helpful to anyone interested in the production of oil from "salt domes."

### An Official Guide to the Denver-Salt Lake Country

The western region traversed by the Denver & Rio Grande Railroad has been studied, measured, mapped and photographed by the Geological Survey, which has now got that interesting country between the covers of a book. The route of the railroad links Denver and Salt Lake City. The guidebook not only describes the scenery along the railroad, but it also takes apart the physical features and explains their formation.

There are factful passages on mining—mining camps of early days are visualized in the brief and forceful histories of Leadville, Cripple Creek, Central City, Georgetown, Park City and Bingham Canyon.

The book presents the policy of the Government in dealing with the grazing problem, and with the disposal of merchantable timber from the national forests. Irrigation enterprises have placed in text and maps. This guidebook is listed as Bulletin 707, and may be obtained for \$1 from the Superintendent of Documents, Washington, D. C.

A reference list of reports published by the Bureau of Mines since the bureau's organization in 1910 is now available on application to the bureau's Washington office. The results of more than 5,000 investigations are listed. Although most of the papers are highly technical, many relate to matters of everyday life and are thoroughly understandable to the layman. The list of 37 pages is indexed by subjects and by authors.

### Business Booklets from the Department of Agriculture

Among the department's recent publications which may be turned to good account by business interests are:

**Coal Tar and Water-Gas Creosotes; Their Properties and Methods of Testing.** Department Bulletin 1036. This bulletin presents descriptions of the different methods of testing creosotes which have been used or suggested, and particularly those now adopted as standards by the various associations interested in wood preservation, and gives a discussion of the value of testing. Price 20 cents.

**Producers' Cooperative Milk-Distributing Plants.** Department Bulletin 1095. It discusses the advisability of establishing cooperative milk plants and suggests methods of financing and conducting them. Commercial milk producers should have this bulletin. Price 10 cents.

**By-products from Citrus Fruits.** Circular 232. Ways and means are suggested for converting unmarketable fruit into money. Price 5 cents.

**Farm Lands Available for Settlement.** Farmers' Bulletin 1271. This bulletin is designed to

point out briefly and to describe the land in the United States available for settlement, and to tell the prospective settler something about the conditions he may expect to meet, the types of farming prevailing in the different districts, and the agencies to which he may apply for information. Free.

**Renting Dairy Farms.** Farmers' Bulletin 1272. A discussion of the various questions which arise when dairy farms are rented on half share receipts, by cash and by crop shares. Free.

**The Bulk Handling of Grain.** Farmers' Bulletin 1290. Discusses the advantage derived from handling grain in bulk rather than in bags. Prepared with special reference to the Pacific coast states. Free.

**Portland Cement Concrete Roads.** Department Bulletin 1077. The purpose of this bulletin is to supply reliable information on the subject of concrete pavements for the use of highway engineers and others interested in the improvement of public roads. Price 15 cents.

**Legal Phases of Cooperative Associations.** Department Bulletin 1106. A discussion of the legal phases found in the decisions of courts of last resort in this country, relative to cooperative associations. The principles applied and announced in these decisions are presented in the bulletin, together with references to the cases cited. Price 15 cents.

**Forest Products Laboratory.** Issued by the United States Forest Service. A brief account of the work and aims of the forest products laboratory at Madison, Wisconsin. Price 15 cents.

### The Last Word in Oil Shale Possibilities

Possibilities from the use of oil shale as a substitute for petroleum are presented in Bulletin 210, by Martin J. Gavin, refinery engineer of the Bureau of Mines, which has been published by the State of Colorado as part of a cooperative agreement with the Bureau of Mines for the investigation of oil shales. Copies of this bulletin may be obtained by addressing the field office of the United States Bureau of Mines, Boulder, Colorado. The most valuable deposits of oil shale occur in Utah, Nevada, and Wyoming; great areas of black shale occur in some of the eastern and middle western states, notably, Ohio, Indiana, and Kentucky. The beds vary greatly in thickness. Laboratory tests have produced a maximum of 90 gallons of oil from a ton of shale. The industry in this country is still in the experimental stage, and has suffered from the "wildcatting" of promoters.

### Ways of Utilizing Waste Fuels

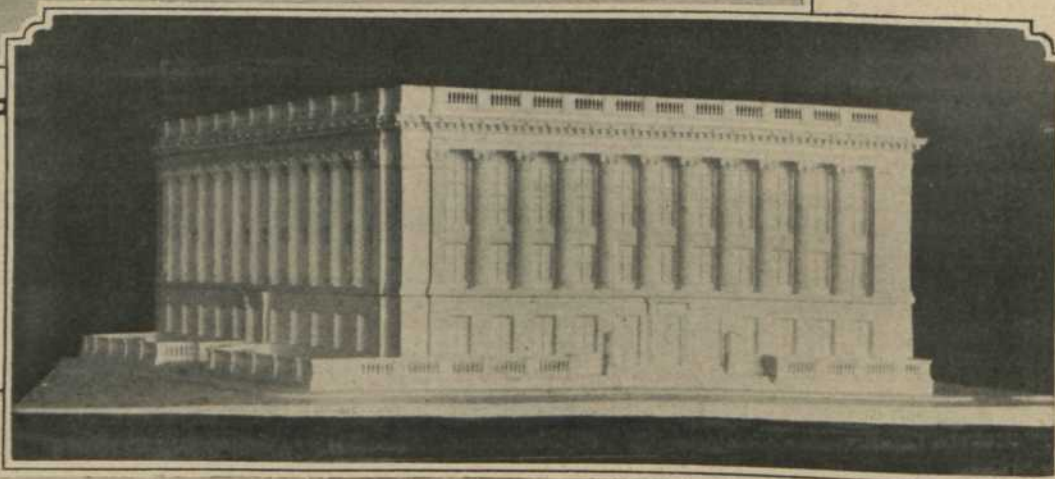
Wastes which may be used as fuels include sawdust, shavings, scraps, edgings, tanbark, wood-extract chips, paper mill refuse, bagasse or spent sugar cane, and city refuse. Their important sources and means for their utilization have been studied by David M. Myers, of the Bureau of Mines, and the results of his study are now available in the Bureau's Technical Paper 279. Spent tanbark for years was regarded as one of the bugbears of the leather industry; its disposal was a serious problem. Experiment produced a furnace in which the bark could be burned economically—the waste fuel was not only efficiently consumed; it generated steam for the plants. Sawdust holds interesting commercial possibilities as a source of wood alcohol. Inventors are working to make paper pulp from sawdust. Encouraging progress is reported in the utilization of the other wastes.



The Building is going up on the spot formerly occupied by the home of Daniel Webster and the adjoining home of John Slidell, shown on the left



The photograph below of a chalk model of the building shows how it will look when completed within a year



## The New Home of American Business

The Webster home has been torn down and work on the new structure is under way. The photograph at the bottom was taken on December 2



DEC. 2, 1922.

Work is progressing rapidly on the new home of the Chamber of Commerce of the United States in Washington. This handsome building, to cost about \$2,500,000, will house the headquarters of

the Chamber. The funds for its construction are being contributed by business organizations and business men throughout the country. The building will serve as a national home for business

## Pertinent Facts About the New Home of the Chamber of Commerce of the United States in Washington

THE LOCATION is in the heart of Washington, at the corner of Connecticut Avenue and H Street, across Lafayette Square from the White House. The site was formerly occupied by the old Corcoran home, occupied for a time by Daniel Webster, and by the home of John Slidell.

The building will be of the classical type of architecture and will extend four stories high. It will front 196 feet on H Street and 150 feet on Connecticut Avenue.

The architect is Cass Gilbert of New York, who designed the new Treasury Annex, facing another side of Lafayette Square.

The construction work was begun in November last and the building will be ready for occupancy in the spring of 1924.

The building will be constructed so as to make possible at a later time the addition of a fifth or even a sixth story.

Back of the building, across the open court, there will be an auditorium to accommodate 850 persons.

The ground floor will be arranged to admit of library, conference, committee and reception rooms for use of members who may have conferences or meetings in Washington.

The second, third and fourth floors will be office floors, housing the offices of the national headquarters in Washington.

The National Chamber will occupy the entire building; no offices will be rented.

The building and site will cost \$2,500,000. Of this \$1,750,000 will be invested in the building and \$750,000 in the land.

Funds for the building and site are largely in hand, having been subscribed by leading business men and organizations of the United States.

The total amount of the building fund was pro-rated among the states, cities and towns of the country.

The new building has been called a workshop for American business. It will be a place where business men may counsel with each other and with federal authorities on those things where cooperation is necessary to sound action.

It will house a research bureau for American business which will acquaint itself with the issues at stake and with industrial conditions prevalent over the world. It will be a place where members of organizations, government officials, and business organizations may feel free to acquire, without obligation, that information which will illustrate the effect of proposed policies upon the economic life of the country. It will be a place where meetings in the interest of the community or of a state, or of a trade, may be held with access to a trained staff of helpers for the purpose of considering negotiations with the government for the things necessary for the well-being of American business.

# Selling New York to New Yorkers

By STANLEY J. QUINN

"IT'S ALL very well for the big chief to give us inspirational talks on turning door-knobs," said the junior salesman, "but I'd like to see how much luck he'd have if he tackled a cold canvass himself for about a week."

And in his inside office the president was expounding his views to the salesmanager.

"The trouble with our salesmen," he stated, "is that they're working in a rut. Instead of getting out after new customers they're satisfied to take orders from the same old circle. If I only had the time I'd like to go out and show them what real salesmanship is. Why, when I was a junior, I —"

Both the president and the junior salesman had an opportunity to test out the capacity of the executive officer as a salesman, in the recent campaign for new members conducted by the Merchants' Association of New York.

Interesting for a variety of reasons, this membership drive was particularly notable for the fact that it took the leaders of New York business out of their offices for four consecutive days and transformed them into a flying wedge of pavement-pounding salesmen.

Not only did they rise to the occasion, but, in addition to acquiring a freshened viewpoint on the problems and difficulties of their own sales forces, they managed to extract a large measure of enjoyment from the entire proceedings.

When the Merchants' Association decided that its membership needed expansion, the Board of Directors determined to place responsibility for results squarely upon the members themselves. Accordingly, the members of the board first pledged themselves individually to the campaign and then called for volunteers.

At a dozen luncheon meetings attended by the executive officers of the business houses which compose the association, its needs and aims were set forth by the officers and directors.

## Executives Turn Salesmen

"YOU have appointed us to conduct this organization for you," was the tenor of their appeal, "and we have outlined a program of constructive effort which calls for wider support than our present membership can give. We need additional funds, for necessary surveys of business and civic problems, and we need greater man-power back of the association's policies and resolutions."

"We can't wait to secure this additional help through the regular process of the Membership Bureau; we want to put on an intensive campaign which will sell at least two thousand memberships to the business houses of the city within the next two weeks."

"You are all busy men, but so are we, and we will match our time against yours. No one can sell a membership as well as a satisfied member. No one can reach the head of one business house as quickly as the head of another business house."

"We don't want your star salesman or your chief clerk to do this work. We want you to volunteer four mornings of next week to go out yourselves to sell your association."

The response to this appeal, coming from such men as William Fellowes Morgan, for seven years president of the association;

J. G. White, of the J. G. White Engineering Co.; Lewis E. Pierson, chairman of the Board of the Irving National Bank; Henry R. Towne, of Yale & Towne; Arthur Williams, of the N. Y. Edison Co.; Alfred E. Marling, president of Horace S. Ely and Co., and William Hamlin Childs, of the Allied Chemical and Dye Corporation, was spontaneous and whole-hearted. As a matter

**T**HERE'S inspiration in this story for any commercial organization. Some of the biggest men in the biggest city in the country stopped their work and personally got out to sell memberships in the Merchants' Association. And it was not only the Association which profited, for these volunteer salesmen themselves learned a lesson. They went back to their own desks with a better understanding of what their own men in the field had to face.

THE EDITOR.

of fact, where only 450 volunteers were called for, more than 650 answered the roll call on the first morning of the drive and these 650 were all active principals in their respective concerns.

Long before the call for volunteers was made, the staff of the association, in collaboration with experts brought in for the occasion, had mapped out the plan of campaign. From the list of New York business houses they had culled a selected list of 14,000 names which because of character, standing and influence would be desirable additions to the association.

This list of 14,000 was then carded and grouped according to geographical location. On each card was printed the name of the firm, the address, the floor and room number, and the name of the individual to be approached.

The volunteer salesmen were divided into one hundred and sixty committees of four, and in some cases five, men each, and each committee was asked to operate as a team instead of as individuals. Every morning of the drive, the chairmen of the teams were handed an envelope containing the cards of at least twenty prospects, and those twenty were so grouped that they could be called on in the space of a single forenoon.

When the volunteers swarmed into the assembly hall on the first morning of the drive, they were told that the ground had been prepared for them by a series of letters, previously addressed to the prospects, outlining the purposes of the association and indicating the advantages of membership.

The selling arguments were rehearsed, the cards distributed, and then the teams scattered for the morning's work.

This work took them into quarters and channels far removed from their accustomed routine. The dry-goods merchant found himself making the rounds of the hardware trade; the banker climbed the stairs of loft buildings to interview the wholesaler. Not

one of the volunteer salesmen came through the first morning without discovering new contacts, meeting new people, and finding new suggestions.

At noon each day the results of each team's work were scored on a large blackboard.

A feature of the luncheons was the voluntary contribution of the theatrical industry. On the first day, Barney Bernard and Alexander Carr, as Potash & Perlmutter, conducted an elaborate argument as to whether the firm would join the Merchants' Association. On the last day Will Rogers, after remarking that some people belonged to everything except their families, asked his auditors to suggest something for him to talk about.

"Tell us why they don't put elevators in loft buildings," called out the plaintive voice of a volunteer salesman who had been canvassing the clothing district.

Day by day the membership roster climbed, and the volunteers quickly changed from hesitant executives out on a half-frolic to seasoned salesmen intent only on rolling up the largest possible number of memberships to the credit of their teams. This was shown by the stories that went round the tables after the second day.

"We had a funny experience this morning," said the chairman of one team. "When we sailed into the place, and the office boy went back to tell his boss that a committee from the Merchants' Association wished to see him, I saw him turn to the boy and wave his hands to the front door. He evidently knew what we wanted."

## Getting Down to Real Selling

"SO instead of waiting to be told he wasn't in, we marched into the office and asked him to join. He made the usual excuses; business was bad, he belonged to a trade organization; his partner wasn't in, and he was busy."

"However, when we told him that our time was as valuable as his, and that we thought enough of our association to give up four business mornings to it, he swung clear around, handed out the cigars, signed on the dotted line, and told us how to get the next man on our list."

"We had an interesting experience, too," said a worker at the same table, "but it didn't have quite as satisfactory an ending."

"We called on one man who for various insufficient reasons couldn't join, but he told us of another man in the same building who was entirely eligible. In fact, he volunteered to 'phone and have him come over."

"We waited, and went through the same performance with the friend, who was intensely sympathetic and interested, but couldn't quite make up his mind to sign. When we got out on the sidewalk we discovered that while three of us were arguing with the second man, the first man was selling a bill of goods to the fourth member of our team."

One committee chairman, the partner in a business of national influence and importance, marched into a luncheon meeting with a fist full of signed applications and with fire in his eye.

"I've just finished talking to the smallest man in New York," he announced. "He told us that he wasn't interested in the Merchants' Association, that he didn't bother with

public improvement organizations, that his own business was all right, and he didn't care whether the city of New York was clean or prosperous so long as he made money.

"I didn't argue with him, or even ask him how long he would be prosperous if the city began to go back. I told him that having met him, our committee wouldn't permit him to join the association if he applied. I added that we were a bit particular about whom we associated with, and that a man with his ideas ought to live with savages instead of in a civilized community."

As the end of the drive approached, the intensity of friendly rivalry among the teams increased. Many of the teams, by private arrangement among themselves, postponed the private business they had reserved for their afternoons and kept at work on the Merchants' Association campaign all day instead of confining themselves to the mornings for which they had volunteered.

They cheered each other when the results, posted at the luncheon meetings, showed that some hard-working team had scored a ten-strike, and exchanged helpful selling points with the greatest goodwill in the world. But one and all were working for the honor of emerging from the campaign with the largest number of new members to their credit.

This coveted distinction finally went to the team captained by Betram H. Borden, of M. C. D. Borden & Sons, which set the high-water mark for the drive with a record of 101 new members.

#### A Cold, Hard Canvass

**Y**ET the campaign brought more than new members and new contacts to the teams that tramped from street to street and from office to office for these four hectic days. It gave each man a new conception of the city in which he lived and proved to him that the spirit of human kindness and helpfulness was alive in the fellow-citizens about him.

This thought was well expressed by George Ed Smith, president of the Royal Typewriter Company, who volunteered for the drive.

"When some of us offered to help in the campaign," he said, "we assumed that all we were supposed to do was to visit a few of our friends, explain the merits of the association and turn in the signed applications."

"The fact that we were handed the names of prospects we had never met, and told to go after them, put an entirely different complexion on the matter. This meant a cold, hard canvass to sell an intangible interest in the public welfare to complete strangers, many of whom didn't know whether the Merchants' Association was a combination in restraint of trade or an excuse for staying out late at night."

"Like many other New Yorkers who started in a smaller community, I felt that the feeling of local pride that exists in places where everyone knows his neighbor didn't exist in New York. One of the great difficulties they're having in making a republic out of China is to convince the Chinaman that the country belongs to him and not to the imperial family. China is too large for the individual to conceive that he has a proprietary interest in it. In the same manner the average New Yorker absolves himself from assuming responsibility for what happens to the city, and figures himself as only one out of six million who will be cared for by Providence or the newspapers or the police."

"Deep down, of course, he has a quiet pride in the fact that he is part of a city which can produce a Woolworth Building or

lead the country in a Liberty Loan. But he isn't at all sure that the rest of the six million have the same pride in the city's progress and dignity."

"The greater thing that came out of the Merchants' Association drive, in my opinion, was the liberal education along these lines that it gave to the men who participated."

"They were thrown each day into a different cross-section of the city's business life. They rubbed elbows with men of various trades and occupations. And they discovered that these other men weren't particularly interested in the direct advantages that would come to them from membership in the association, but that they were intensely interested in what the association could do for the city."

"The workers learned that it didn't pay to talk much about the information and statistics which the association could supply for each industry, but they found an immediate

response when they spoke of what the association was doing and could do to make New York a cleaner city, a better city, a city with better schools, better streets, and better government."

"In other words, they learned that pride in the old home town was as strong in New York as it is in the cross-roads village, and that ideals and the desire for better things are the same on Broadway as they are on Main Street."

"That comforting conclusion was alone worth all the time and energy that was devoted to the campaign."

A final word should be added for the benefit of the junior salesman. The Merchants' Association asked its volunteers to produce 2,000 members. And as a result of their efforts the big chiefs turned in 2,036 signed applications from their fellow-business men of New York.

## Plans for Rome Meeting

**B**ELIEVING that the time has now come when business men should assert the right, based upon their knowledge and experience and their interest, to come forward and state in no uncertain terms that the vital problems now so seriously disturbing the peace and prosperity of the world shall be settled upon sound economic principles—principles which will promote the peace and welfare of mankind rather than primarily the popularity of individuals or political parties—leading business men throughout the world will meet at Rome for the purpose of discussing frankly and seriously some of the most pressing issues."

The above quotation, from A. C. Bedford, tells the real purpose of the second meeting of the International Chamber of Commerce at Rome, Italy, March 18 to 25. The quotation is from the foreword of a tentative program for the meeting.

The program is divided into three general subjects: Finance, Industry and Trade, and Transportation. Under finance there will be discussed the following questions:

Financial Measures Necessary for the Restoration of International Trade.

Reparations.

Inter-Allied Debts.

Bills of Exchange.

Double Taxation.

Topics to be taken up under the general subject of Industry and Trade, are:

Equitable Treatment of Trade as Regards Customs Formalities and Analogous Questions.

Measures to Prevent New Import Duties Introduced by the Different Governments from Affecting Goods Shipped or Contracted for Before the Date of Application of Such Duties.

Removal of Export Taxes on Raw Materials.

Protection of Industrial Property—Unfair Competition.

International Commercial Arbitration.

Uniform International Trade Statistics.

Difficulties in the way of international transportation will be discussed from three angles:

National Restrictions on Maritime Transportation.

Coordination of the Air Services of the Different Countries and Facilities for International Communications to be Established.

International Railway Communications.

The American delegates will depart from New York on the steamship *Caronia* for a

cruise of the Mediterranean Sea. The following ports and cities, etc., will be visited: Funchal, Madeira, Gibraltar, Algiers, Monaco, Genoa, Naples (first call), Athens, Constantinople, Alexandria, Cairo, Haifa, Jerusalem, Dead Sea, River Jordan, Jericho, Bethlehem, Naples (second call), arriving in Rome on Saturday, March 17, 1923.

*Saturday, March 17.*—The Board of Directors of the International Chamber will meet in Rome. The Organization Committee will meet in Rome to draft proposed amendments to the constitution, which will be voted upon at the general session, Thursday afternoon, March 22.

*Sunday, March 18.*—The formal opening of the Congress will take place in the afternoon.

1. Addresses of Welcome by the President of the Congress and Government representatives.

2. Response by the President of the International Chamber.

3. Report of the Board of Directors on the Chamber's activities.

*Monday to Saturday, March 19-24.*—The program will be divided into General Sessions and Group Committee Meetings, beginning on Monday, March 19, and continuing throughout the week. The topics for discussion will be grouped under three main heads: Finance, Industry and Trade, Transportation.

Group committee meetings will be held morning and afternoon on Monday, March 19, Wednesday, March 21, and Friday, March 23. General sessions will be held morning and afternoon on Tuesday, March 20, Thursday, March 22, and Saturday, March 24.

The Resolutions Committee will meet on the day preceding each general session to consider the resolutions from the group committee meetings. The debate on the resolutions and work of the group committees will take place at the general sessions.

All delegates will be permitted to take part in the deliberations of the group committee meetings and to participate in the discussions at the general sessions.

In order to prepare for each group committee meeting and each general session the respective national committees will meet at 5 o'clock each morning.

The committees that have been at work during the past year on resolutions passed at the first general meeting (London) will have opportunity to report at the appropriate group committee meeting in Rome.

# Along the Side Roads of Industry

With RICHARD SPILLANE

## The Auto the Transportation of Democracy

No vehicle devised by man has come into such wide use in so short a time as the automobile. There are approximately 10,250,000 motor cars and 1,250,000 motor trucks in the United States. Some authorities say the point of saturation is 17,000,000. You would think, from the congestion on city street and country highway in summer time, the estimate of saturation point is too high.

The person afoot has to watch his step. Even then casualties are many. Traffic problems become more perplexing year by year.

One thing for which Henry Ford does not get credit is that, but for him, there probably would be vigorous opposition to the automobile and it would know many restrictions. If it were the vehicle solely of the rich or well-to-do, a class consciousness would have been aroused. But nearly half the automobiles are Fords, and no longer can it be said truthfully that

"The rich they ride in chaises."

The vast majority of the Fords are owned by wage workers or persons of modest income. The democracy of the automobile gives to it an immunity it otherwise might not command.

Of course if there were no Fords there would not be such a crowding of the highways, at least as yet, but the fact remains that it is because of the Ford and cars of relatively small cost that the automobile today has privileges, if not rights, that otherwise might be challenged, if not curtailed.

It is the vehicle of all the people as no other vehicle has been. And if it were used throughout the world to the degree it is in America, the total of passenger cars would be 184,250,000.

World recovery means as much for the automobile people as those of any industry in America. It is not improbable that the next twenty or thirty years will see the foreign field almost as big for the car makers as the domestic is now.

Who, twenty-five years ago, when the automobile was introduced, would believe that more than 10,000,000 passenger vehicles would be in use in this country today and about 5,000,000 of them by wage earners or salaried men and farmers?

Thus far the industry has had a tendency to prove its most sanguine prophets conservative.

\* \* \*

## A Record Jail Dodger

In Great Britain action by the courts is expeditious whether the case be a civil one or criminal. In the United States the law's delays have tended to bring law into contempt, delay if not defeat justice, and helped to cause organizations like the Ku Klux Klan.

Here is a case that warrants attention: The Atlantic National Bank of Providence failed in April, 1913. Henry E. DeKay, a broker, was accused of aiding and abetting in the misapplication of its funds. In January, 1915, twenty-two months after the bank failure, he was convicted and sentenced to five years' imprisonment. He appealed, but

his conviction was sustained. He took the case up to the Supreme Court of the United States, and now it upholds the verdict and, nine years and eight months after the bank failure and eight years after he was found guilty he must go to jail, that is, unless his lawyers can find some way to delay the case further.

There is a classic instance in a civil case in New York. A property owner sued the Elevated Railroad for damages. After the case had been fought for eighteen years the Court of Appeals, the highest tribunal in the state, sent it back to the court of original jurisdiction to be tried all over again.

\* \* \*

## No "Can't Afford It" In Syrian

Salloum Mokarzel, editor of the *Syrian American Magazine*, says there is no such term as "I can't afford it" in the Near East.

To illustrate it he tells this story. Toward the close of the World War one of the fellahen of the Nile Valley came to Cairo with his crop of long staple cotton. He got a fabulous price for it, for cotton was at the highest since the Civil War. He was barefoot and ragged. The more than \$4,000 he received was sufficient to make him comparatively independent for life but he craved an automobile and he paid \$4,000 for a second-hand car of a very expensive make.

\* \* \*

## Failed For \$13,000,000 Paid It All

A man of Wall Street who, twenty odd years ago, failed for \$13,000,000 and, four years later, paid every cent of his personal obligation in that failure, had all his employees as his guests at luncheon Christmas Eve.

The luncheon was given in a very old building in Water Street near Wall over the headquarters of a large mercantile concern and now a delightfully quaint restaurant.

It was in that old building that the man of Wall Street had his first employment and earned his first dollar. His job was pasting labels on tobacco sacks—sacks that contained the smoking tobacco now widely known as Bull Durham.

The man who gave the luncheon was Theodore H. Price.

Sentiment plays a larger part in business than the average person knows. One of the great soap-making concerns of America was founded nearly a century ago. It still is controlled by descendants of the founder, and among its treasures are the little vat in which the fats were boiled in the early days and the account books of long ago.

It was the custom of the founder to have his wife and children sit with him once a week to discuss business progress.

He and his family were lovers of coffee and, while they held council, they sipped coffee.

Until comparatively recent time it was the rule, when the officers of the company, the male descendants of the founder and the department heads met in conference, to serve coffee as soon as all were seated.

Possibly it still is done. If it isn't, it should be.

\* \* \*

## The Men the World Listens To

What a shock it would be to Sir Walter Scott, if he lived in these times, Sir Walter who fed on Pageantry, or "Tom" Moore, of whom Tommy dearly loves a Lord. Kings and princes disappear from the scene today and we think little of it. Nicholas, Czar of the Russias, with all his family, massacred and the incident almost forgotten. The Sultan of Turkey, head of the Mohammedan world, exiled one day and scarcely a ripple on the tide of events made by it. Princes and potentates flocking to America and receiving not a hundredth part of the attention given to Georges Carpentier when he came here for his bout with Jack Dempsey.

The former Kaiser, whose every expression was a matter of world importance ten years or less ago, writes his memoirs and the public doesn't show even ordinary curiosity about them.

What a change from the time when much of the literature, the fairy tale, was made up of kings and queens and princes.

The views of Mr. Gary of the United States Steel Corporation command more attention today than those of any king or potentate.

Mussolini bobs up almost over night in Italy with more power than the king.

Mustapha Pasha, a soldier of Jewish blood, is ruler of Turkey in Europe and Asia.

A little Welshman, the most powerful figure in the British Empire in the World War, and succeeded as prime minister by a Scotch Ironmonger.

Clemenceau, a doctor who turned statesman, savior of France in the hour of her greatest peril.

There's no material in this for those who would weave their tales about the king and princes and the silken court.

The glamour has gone. The world is concerned today with the doings of men, real men—not with princes. A thing some ancient Greeks dreamt has come to pass, Democracy rules. If the voice of the people is the voice of God now it should have expression.

\* \* \*

## The Ingratitude of Soviet Republic

Sam Houston once said of a particularly mean individual that he had every attribute of the dog except gratitude. But Houston should have known the high priests of the Soviet system. The American Relief Association has been feeding 10,000,000 or more men, women and children of the famine districts of Russia.

Trotsky's official recognition of this work has been in the giving to the press of Moscow and Petrograd a story that the association men are grafters because a few of the thoughtless among them bought skins of fur-bearing animals for friends in the United States and used the association mail bags in shipping them out of Russia.

# The Improvement in Business Still Holds and is Consolidating its Gains

By ARCHER WALL DOUGLAS

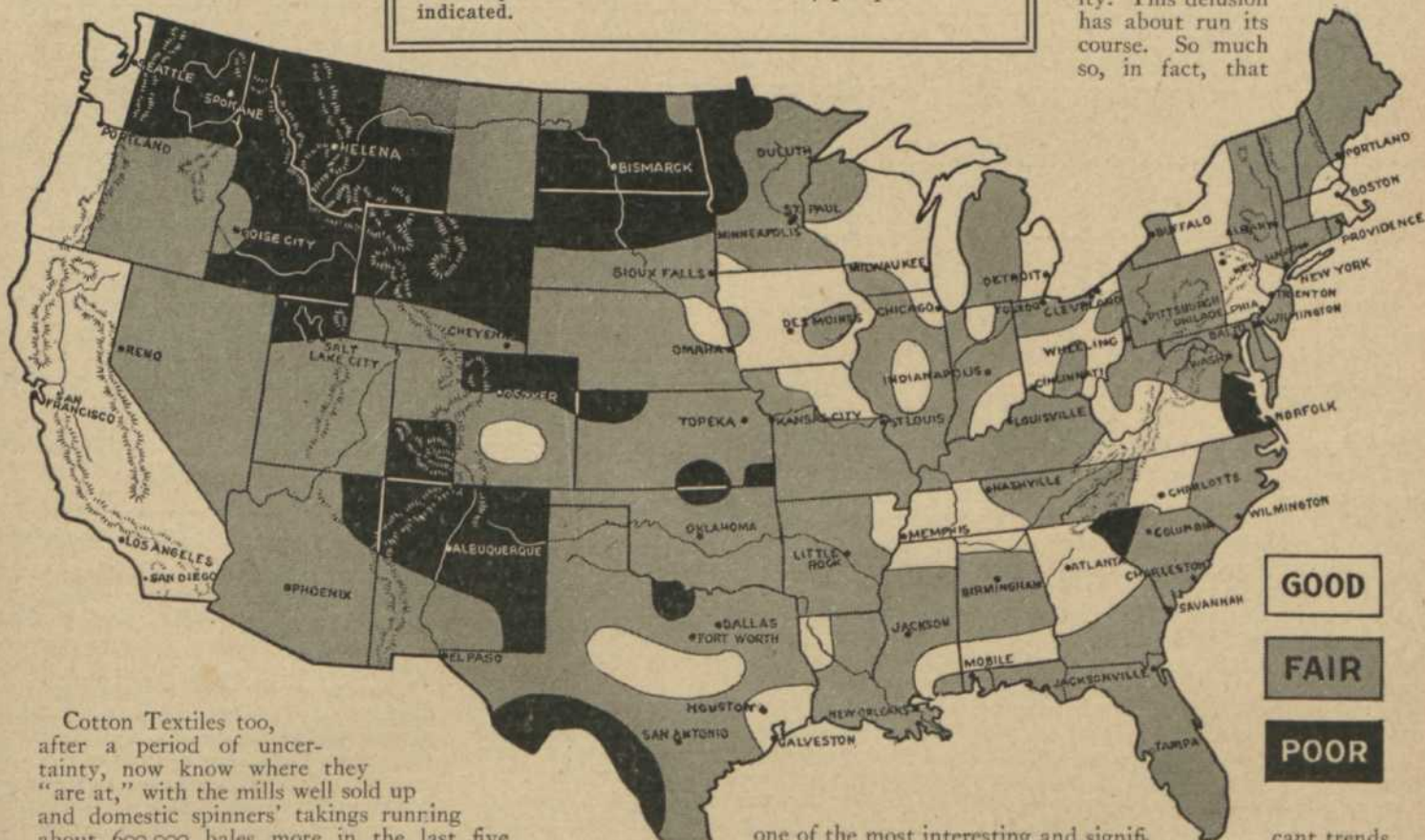
**B**USINESS activity in all phases of industrial life was most notable during the past month despite the seasonal slowing up which succeeds the holiday trade, and the annual calling in of travelling salesmen to headquarters to get new instructions and inspiration.

The Leather business is a good instance of the prevailing situation, somewhat lower prices a short time ago in hides and skins paved the way for increased demand, and for larger output in fabricated materials, especially shoes.

## Business Conditions, January 15, 1923

**T**HE DOUGLAS MAP shows at a glance the general conditions of the country. Light areas indicate good crops, industrial activity, and "high pressure" buying markets. In the black areas these conditions are lacking. The shaded areas are half way.

In studying the map it should always be borne in mind that only actual conditions are shown; prospects are not indicated.



Cotton Textiles too, after a period of uncertainty, now know where they "are at," with the mills well sold up and domestic spinners' takings running about 600,000 bales more in the last five months of 1922 than for the same period of the previous year. These excess takings, however, were all by the Southern mills, as labor and legislative regulations and restrictions in New England are of such a nature that some of the large corporations there are contemplating making further additions in the Southern states. For it unfortunately happens that killing the goose that lays the golden egg always has the same destructive effect, whether prompted by humanitarian motives, or instigated by blind political and economic folly.

Cotton exports do not present so encouraging a picture, as they fell off about 500,000 bales during the last five months of 1922 compared with the similar period of 1921, because economic and other conditions in Europe continue to be as the troubled sea which knows no rest.

Iron and steel manufacturing are busy, though the keen edge is off demand, and prices have receded somewhat, since buyers in general were sufficiently posted on production possibilities and likelihoods to play a waiting game. The metal industry, however, has an encouraging prospect in the months ahead, for automobile makers have an ambitious program outlined for this year. They are evidently banking more upon human nature, and the increased purchasing power of the many than

upon those mental exercises of statisticians as to when the saturation point will be reached. Then, too, the railroads are placing comparatively large orders for materials and equipment, and already locomotives and cars are coming out of the shops in slowly increasing numbers.

This, in time, will dispose of that little fiction, which passed current for a time among a few, that continued lack of transportation would result in shortage of goods, which in turn would cause an era of rising prices attended by much immediate prosperity. This delusion has about run its course. So much so, in fact, that

one of the most interesting and significant trends of thought in the past thirty days is that towards conservatism and caution in advancing prices, and the further realization that it is a buyer's market, and that the consumer is suspicious of higher figures for commodities, and still has to be shown.

Mining activity in copper, zinc and lead is well sustained and prices are correspondingly firm.

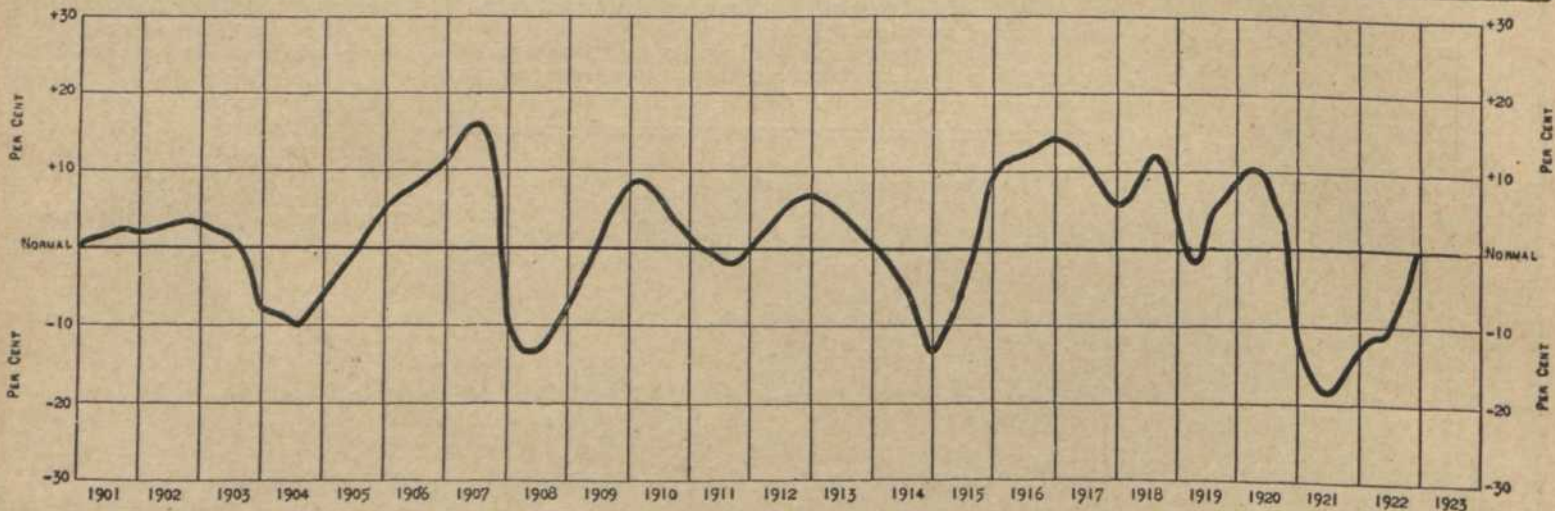
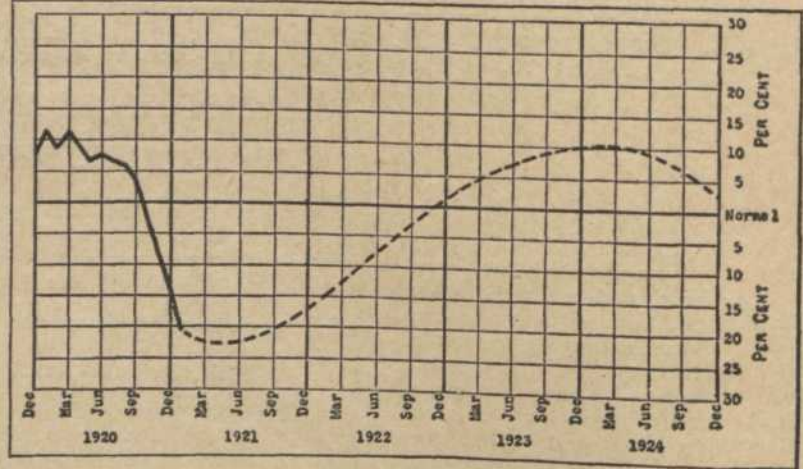
Crude oil continues to accumulate, and those who risk aught upon the prospects of what may happen in this line must have stout hearts. Drilling and prospecting are at low ebb save in a few fields, which means quiet times in places where only pumping goes on.

Building and construction are at an unusual rate for this season of the year, with the expectation of much greater volume when spring opens. Brick, lumber and all building material share in the general activity; lumber output being of widespread local benefit to many sections and many states, from the vast yellow pine belt in the South to the still vaster forests of Douglas firs in the far Northwest, and on the Pacific Slope. Two important adjuncts of building, paint and furniture, are not only well employed but look forward to even greater business during the coming months.

The entire Cotton Belt has taken on new life and hope because of continued high prices of the great staple. Farm implements

Below is a chart prepared to go with a recent report of the Committee on Statistics and Standards of the National Chamber, of which Mr. Douglas is chairman. It's a composite index of production and physical movement of manufactured products and certain basic raw materials other than foodstuffs. In a sense it's a sort of a one-line history of American business for the past 22 years. It's interesting to note that the depression that began in late 1920 and came to its low mark in the middle of 1921 was the lowest in that period, lower than those of 1903-04 and 1907-08.

In April, 1922, we published an article on charting ahead a big business in which we showed a similar index line and how at the beginning of 1921 it had been projected for 1921-1924 inclusive. At the right is the projection we then printed. It may be of interest to compare the two after a year has passed, though it would be unsafe to accept the line for 1923 as a guide to the current year, for such projections call for frequent revisions and are not intended as prophetic.



are being bought in much increased percentage over a year ago, debts are being settled, and preparations made for a large acreage of cotton this spring.

There will probably not be so much garden truck raised as last year, as much of the late maturing vegetable acreage found a glutted market at ruinous prices. The production of early vegetables ebbs and flows in volume each season largely in accordance with the financial results of the previous year.

In truck gardening, cooperative marketing is usually the best method of success, and this plan promises to have extensive trial this coming season in practically all the cash crops of the South. It is being employed more and more in the cotton producing districts, and has taken firm hold in the tobacco sections of the Central South and the Atlantic Seaboard. At this writing announcement is made of the distribution of between four and six million dollars to the growers of burley tobacco in Kentucky from the sale of their 1921 tobacco crop.

Raisers of sheep in the Far West and Southwest find the high price of wool the bright spot in their sections, though it is not so well with cattle which are far away from the principal markets with consequent low prices. Wool is a striking example of how the price of an article can be doubled in twelve months because of increased demand, also a protective tariff, and thus convert a losing business into a profitable venture.

While wheat and corn have fluctuated much on rumors, and long selling, on shorts running to cover, and all other methods of speculation that bear small relation to the actual facts of the situation, their prices are still on the upgrade and liable to go higher if rain or snow be not had soon in the great stretch of winter wheat territory from the Texas Panhandle to

the central part of Nebraska. For the growing plant there is in a critical condition at this writing from lack of moisture and from exposure to the winter's cold.

Prices of corn are well maintained, as are those of hogs, notwithstanding an abundance of both. So matters continue very cheerful in the Central West, even though the dairy business, which is one of great local importance, is getting unsatisfactory prices for milk in many sections.

There is much in public print at present as to how much better off the farmer is because of index numbers which tell of steadily rising prices of farm products. Much of this is most misleading, for the best that can be said of most index numbers is that they are sometimes approximately correct, and you can never be sure of that unless you know how they were constructed and by whom. To get their real meaning and application they have to be analyzed into their original factors according to localities.

Cotton, for instance, forms a very large part of the advance in prices of farm products and applies only to certain sections of the South.

Then, too, the price of cattle in Western Montana is one thing and that of cattle in Iowa a far different matter as related to its effect upon the farming community in each state and section.

So likewise, between the price of Irish potatoes in Aroostook county, Maine, and those in Lake county in northern Illinois, there is a great gulf fixed. In the former case it means ruin and debt for every grower, and in the latter instance it is a source of revenue. So attempting to average farm prices under the present conditions is mostly theory and foolishness.

In all agricultural sections on the accom-

panying map you will get the true conception of farming conditions from the revealing shadings.

### Shermanized Bill Boards

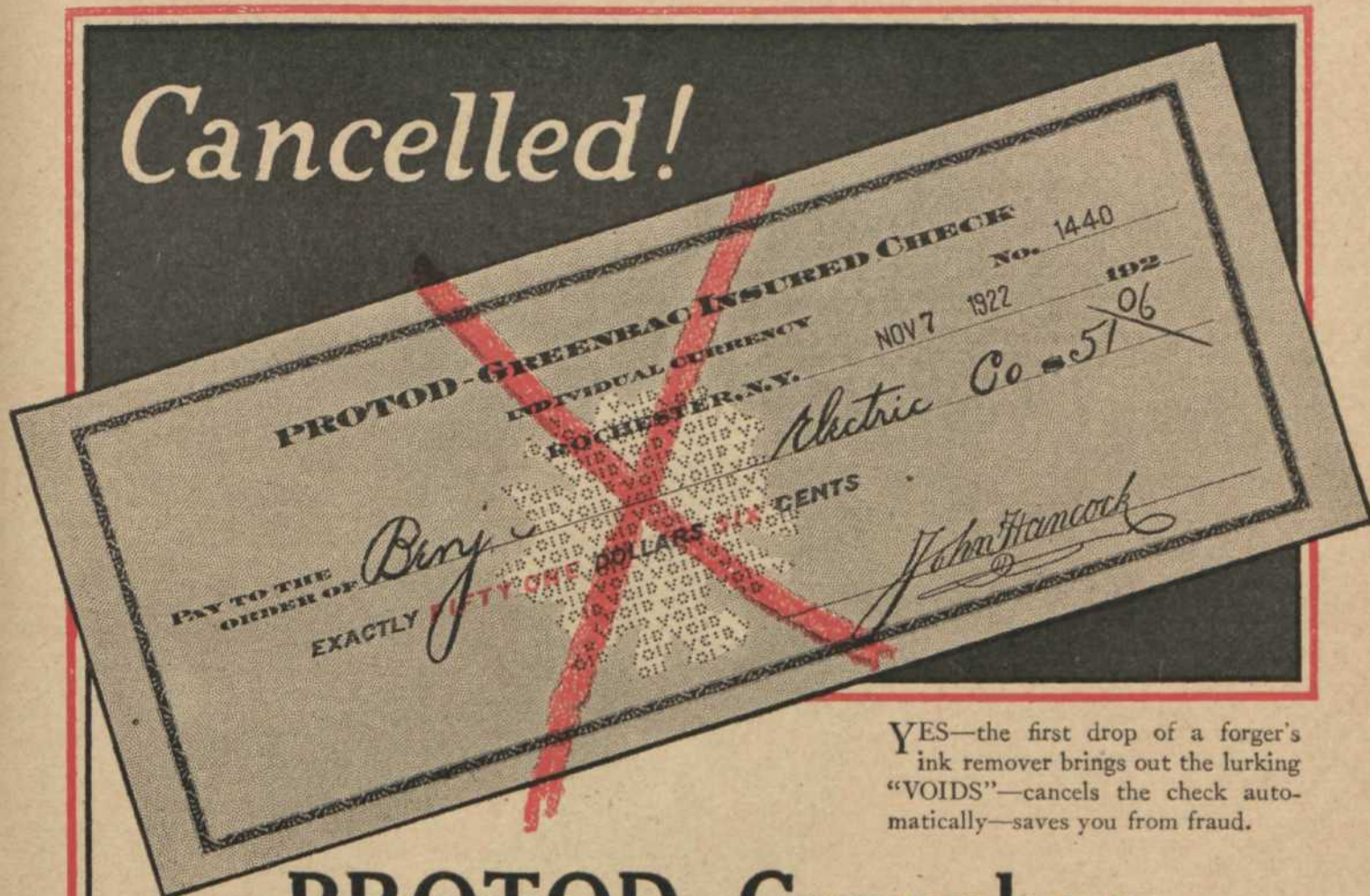
**B**ILL BOARDS are local affairs but they may have their part in a restraint upon interstate commerce. This was the decision of the United States Supreme Court on January 2.

Concerns which prepare posters and cause them to be displayed on bill boards brought action against the Associated Bill Posters, asking for treble damages under the Sherman Act. The bill posters took the position that, even if the plaintiffs proved everything they alleged, there could be no recovery since there was no interstate commerce. With things in this state the case came before the Supreme Court. In other words, the question was whether or not, if the plaintiffs proved everything they averred, they could have damages.

The allegations were that the association was composed of one bill poster in each town, that these bill posters were bound not to put up posters for concerns which gave business to nonmembers, that prices for bill posting were fixed, and that producers of posters were coerced to refuse to supply concerns that patronized independent bill posters.

The court held that, if this were the state of facts, there could be recovery under the Sherman Act. In its view, the combination would be nationwide, its members would be bound to pursue a course of business which was designed to interfere with the free flow of interstate commerce, and there would be a purpose to obtain a monopoly by restricting commerce in posters to channels dictated by the confederates and to demand noncompetitive prices.

# Cancelled!



YES—the first drop of a forger's ink remover brings out the lurking "VOIDS"—cancels the check automatically—saves you from fraud.

## PROTOD-Greenbac

### Forgery-Proof Checks and Drafts

Always Green on the back. Choice of colors for the face. Printed or lithographed to your specifications.

Protectograph Check Writer indelibly protects the amount by "shredding" through the fibre of the check, a line in two colors like this:

**EXACTLY SEVEN DOLLARS NO CENTS**

### Insurance Policy for \$10,000

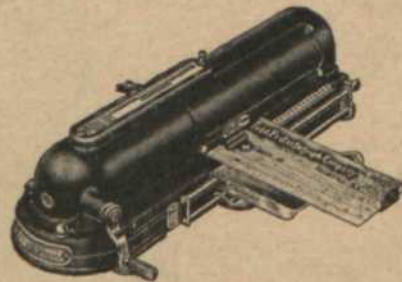
Insurance against alteration of name, date, number, or amount as well as forgery by duplication. In eight years of issuing insurance policies with our machines and checks, either in combination or separately, there has never been a loss due to any failure of the system—not a single valid claim ever reported. The Protectograph System is complete prevention.

### Todd Protectograph Co., Inc.

(Established 1899)

1174 University Ave., Rochester, N. Y.

Also makers of STAR ADDING MACHINE



Send this coupon with business letterhead, for forgery exhibits and PROTOD-Greenbac samples showing the "VOIDS."

TODD PROTECTOGRAPH CO., Inc., Rochester, N. Y.  
Send forgery exhibits and PROTOD-Greenbac samples.  
Name.....  
N.B. 2-21

# From Grasshopper to Man

By JAMES B. MORROW

**N**OCTURNAL moths and diurnal butterflies. Then birds, including quails, meadow-larks and prairie chickens. Then miscellaneous insects, especially grasshoppers. Then animals, wild and tame. And, at last, men themselves. The habits of all, the instincts of all, the needs of all and, in some cases, their anatomy and appetites.

So, stage by stage, from boyhood to manhood, Vernon Kellogg became a brilliant zoologist. Fields, swamps and forests were his laboratories. Now, however, he is indoors mostly, and human beings, their food, clothing, shelter, education and general well-being, engage his genius and enthusiasm. There is no sin against congruity when a zoologist turns from beehives and ant-hills to mankind collectively.

One law in common to all living things—to trees, to beetles and to men. A law with two grand and inviolate sections. First, sustenance. Next, reproduction. Sustenance was once a tragic matter in Kansas, where, at Emporia, Vernon Kellogg was born. Tragic to farmers, whose crops were devoured by grasshoppers; tragic to villagers, whose food came from the fenced-in and open prairies. Thus the first of Vernon Kellogg's twenty-odd books bore the title: "Common Injurious Insects of Kansas."

Elderly men, and younger ones, possibly, whose purpose in youth it was to be lawyers and statesmen and to address juries and assemblies of their fellow-citizens, may remember, having marked the margin as they read, that Cicero's "Oratory and Orators" notes the "alliance and affinity that connect all the liberal arts and sciences."

Zoology, moreover, as defined by an eminent master of the English language, is "the science of animals; the natural history of the animal kingdom; the body of fact and doctrine derived from the scientific study of that series of organisms whose highest term is man."

Canons authorizing and impulse constraining, Vernon Kellogg, in his growth professionally, found post eventually on what what might be called the ramparts of humanity. Winged creatures and furred creations are still of interest, but human beings, old and young and of both sexes, now are the subjects of his toil, inquiry and philosophy. Chiefly, of course, those human beings who inhabit the United States.

Therefore he is found at the head, executively, of the greatest body of scientists, here or elsewhere, ever brought together for patriotic and benevolent purposes: the National Research Council, whose focal city is Washington. "Benevolent," as just used, is descriptive, technically, of prosperity and happiness. There can be no prosperity and little happiness when there is an absence of profits and wages. The statement might be limited, even, to profits, because where there are no profits there can be no wages, except uncertainty industrially or commercially. All of which is a platitude that is contradicted and ridiculed by many who are seeking for votes and yearning for mention in the newspapers.

Peace being the portion of this nation at present, the National Research Council (hav-

ing wrought zealously and honorably through the World War) is now engaged in promoting the business prosperity of this nation. It is, bluntly, a bread and butter organization. The members, however, will wince at that definition. They say that they are engaged in the realm of pure science, meaning the discovery of facts and principles. Applied science is the practical use of pure science, of the discovered facts and principles.

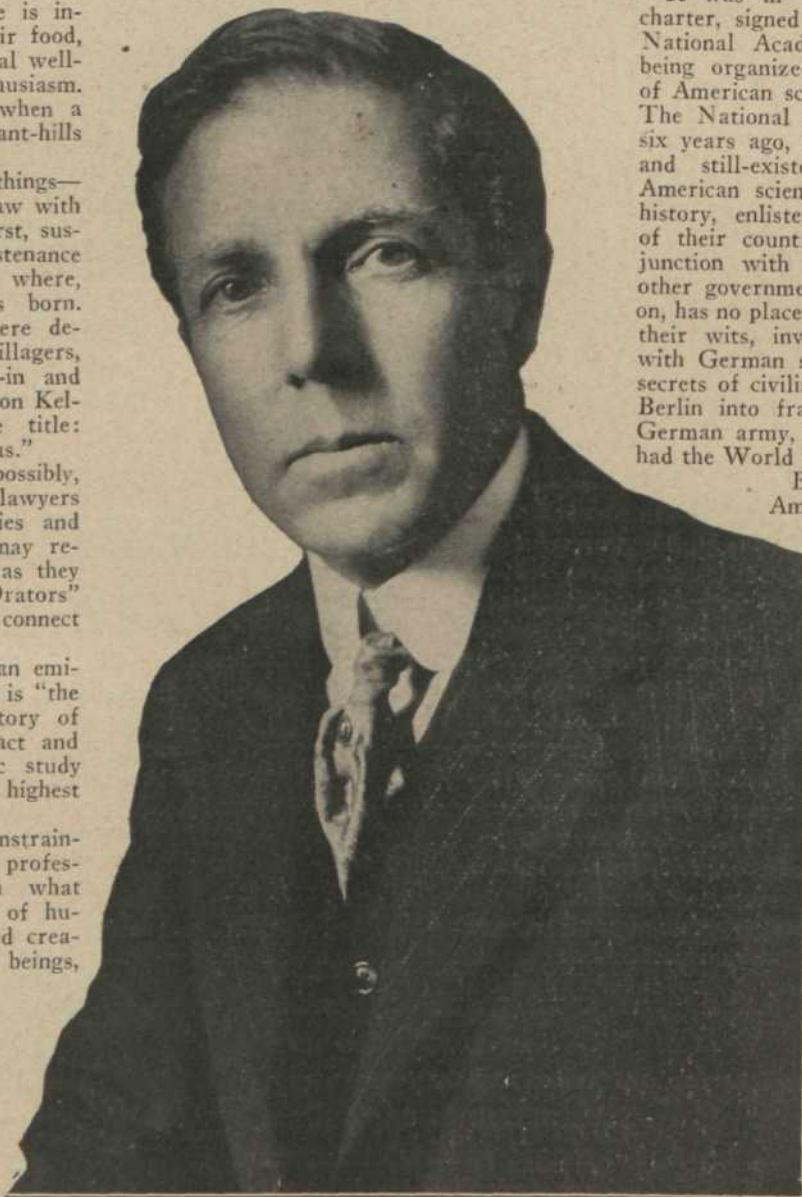
A professor at a university, or an in-

English as the "Memorable Thoughts of Socrates," Xenophon, his disciple, says that the Greek philosopher "advised against amusing one's self with the vain curiosities of science and never to go beyond what is useful." Such, in the main, is the dogma of American science today. The wisdom of Socrates could appropriately be cut into a stone of the beautiful temple which the National Research Council has under way in the city of Washington.

It was in 1864 that Congress voted a charter, signed by Abraham Lincoln, to the National Academy of Sciences, which, on being organized, was the first mobilization of American scientific men for work in war. The National Research Council, established six years ago, is an offshoot of that ancient and still-existent academy. Through it, American scientists, for the second time in history, enlisted in a body under the flag of their country. What they did, in conjunction with army and navy officers and other government engineers, chemists and so on, has no place in this article. They matched their wits, inventions, knowledge and skill with German science, until then one of the secrets of civilization, and would have blown Berlin into fragments and suffocated every German army, whether in trenches or afoot, had the World War lasted six months longer.

Brought together for war, American scientists have since

stood together for the works of peace. Business men, engaged in great enterprises, have united with them. Representatives of seventy-seven scientific and technical societies are members of what properly can be called the staff of the National Research Council. With them, or co-operating with them, are professors from Princeton, Harvard, Yale, Cornell, Columbia, Johns Hopkins, the Massachusetts Institute of Technology, the California Institute of Technology, Northwestern University and the Universities of Chicago, Illinois, California, Wisconsin, Missouri, Iowa, Minnesota and other states. The names of the officers and committeemen fill forty printed pamphlet-sized pages. This is the organization of which Vernon Kellogg is the permanent secretary and the



Insects engaged him first, but he's found time to write books on art (under a pseudonym), ethnology and a life of Hoover, whose close and constant friend he is

dividual, unconnected, through the love of investigation and experiment, improves an electric lamp by learning something that was unknown before. This man is styled a fundamental scientist, a pure scientist. His discovery is employed in a factory; that is applied science. And the rewards in most cases go to the owner of the factory, unless the discoverer or inventor is some such materialist as Thomas A. Edison.

Writing out what has been translated into

ever-present and active manager. In a word, its object is the promotion of the public welfare. In many ways. Particularly by stimulating research in the mathematical, physical and biological sciences and "the application of these sciences to engineering, agriculture, medicine and other useful arts." No utilitarian platform could be larger or more impressive.

There is nothing, indeed, except, perhaps, party politics and theology, in which the



## Where building proved cheaper than renting

THE new building of the Oak Park Trust and Savings Bank, Oak Park, Illinois, provides a banking room 64 feet wide and 115 feet long; a large safe deposit department in the basement, a mezzanine floor of rentable offices; and a third floor especially arranged for doctors and dentists. Owing to the revenue received from the offices, the investment and maintenance cost of the 12,000 square feet of floor space occupied by the bank will total per year 50% less than the rental rate for equal facilities in the vicinity.

These facts were developed by the investment study which is a part of the preliminary

service furnished by Hoggson Brothers for every building project. This building was proposed not only because of its architectural beauty, nor solely because of the convenient arrangement of banking quarters, but fundamentally because these two features had been combined in a design which would be a sound business proposition for the bank.

A booklet which contains two complete examples of our standard preliminary service will be mailed upon request to those who are interested in the design and construction of bank buildings, office buildings, or alterations to either type of structure.

THE HOGGSON ORGANIZATION		
I	II	III
<i>Architectural designs, bank plans and working drawings</i>	<i>Building investment surveys</i>	<i>Building construction, banking equipment, decorations &amp; furnishings</i>
485 FIFTH AVENUE, NEW YORK FIRST NATIONAL BANK BUILDING, CHICAGO		

## HOGGSON BROTHERS

*Architectural Design and Building Construction*

BANK BUILDINGS · OFFICE BUILDINGS

Council is unconcerned. It is working today on problems as wide apart as macaroni and child welfare, as highways and the pressure phenomena inside the earth, as thunder storms and the heat treatment of carbon steel, as baking and quicksands, as cotton and medical plants, as wool and schools, as tanning and glass, as forestry and pulverizing processes, as sewage and pastures, as welding and fruits and as food and "the fatigue of metals," notably steel.

The Council has no large operating laboratories of its own. A man, for example, appears with an idea of seeming use and soundness. The idea is submitted to the Council's experts in physics, mathematics and astronomy, or in chemistry and chemical technology, or in biology and agriculture, or in medical science, or in psychology and anthropology, or in engineering, or in geology and geography. The experts will be, probably, scientists employed in manufacturing establishments or professors at universities. They look into the idea. If it is worth developing, the man who suggested it (he may fill a chair at some college, or be a chemist or an engineer) is backed financially, possibly in the sum of \$1,500 or \$2,000 yearly, to perfect and practicalize his conception or discovery.

This he may do through an arrangement made by the Council at the laboratory of some university, where he has equipment and assistants. Such a privilege and such an honor when bestowed by the Council is called a fellowship.

The seeking of scientific knowledge and the spreading of it when found is the Council's main business. Its officers work hand in hand with the Government's scientists and the scientists of industrial enterprises. The Council, then, is also the great American storehouse of scientific truth. What are the latest facts bearing on pneumonia? Or diabetes? The Council has them. What is the best practice for the preservation of food? The Council knows. Why does steel crystallize? The Council is engaged in finding out.

A small man, having no laboratory of his own, nor business enough to maintain one, can obtain from the Council the latest information about the article he manufactures, its processes of production, its machinery and so on. The Council "attacks"

(to employ its own word) a problem from all of its sides, calling to the "attack" experts in chemistry, engineering and possibly half a dozen other branches of science as, for illustration, insects and fungi. The common way of investigating is to put an insect man and a fungus man to work separately. The new way, as followed by the Council, is to have both men work conjointly, because fungi and insects may not be two tragedies to a plant, but a single cooperative tragedy—the breaking of the tissues of the plant by the fungus and its slow or rapid destruction by the in-

structive competition. The realization of this fact is shown by the five hundred or more firms now maintaining laboratories for industrial research."

The National Research Council, since the end of the World War, has received no funds from the Government. It has been given, however, \$5,000,000 by the Carnegie Corporation. "Part of the gift," Dr. Kellogg says, "is to be devoted to the erection of a suitable building in Washington for the joint use of the Council and the National Academy of Sciences and the rest is to serve

as an endowment for the Council." The funds, \$185,000, for the purchase of land on which the building will stand were obtained from more than a score of individuals.

"For the support of the special scientific projects set on foot or fostered by the Council," Dr. Kellogg explains, "it relies on gifts obtained from time to time from various sources. The most notable of such gifts so far made has been one of \$500,000 given by the Rockefeller Foundation for the support, during five years, of fellowships in physics and chemistry."

No mention, much less boast, was made by Dr. Kellogg of the sum so far contributed for the housing, administration and work of the Council, but to his energy, zeal, character, eminence and imagination can be ascribed a very large part of it. His is a vitalizing mind. Likewise a versatile and an eager mind. A lantern, no matter his task, is in his hand. With it he lights his own way and others fall in behind.

They fall in, first of all, perhaps, because Vernon Kellogg is an attractive man, having eyes that are a mixture of gray and brown, as well as a steady and

sensible man, whose language is clear to the lay understanding. A biographer of Roger Bacon says that he cried out in disgust against "the concealment of real ignorance with a show or pretense of knowledge." There is none of that with Dr. Kellogg; none of that, of course, with any large and able man. Dr. Kellogg, being understood, halts the manufacturer and the merchant and persuasion ensues.

One of his favorite topics is heredity and environment. Working together, they give the world a good person or an evil one. His father, a lawyer, was Lyman Beecher Kel-



As the architect visions the great hall of the Research Council's new home. In the center hangs a Foucault pendulum, which demonstrates to the eye the rotation of the earth

sect thus given easy access to its vital parts.

The United States Chamber of Commerce has learned that "American industry is spending about \$7,000,000 annually in scientific research," and the results have been the saving, approximately, of half a billion dollars yearly to manufacturers and the users of their products. "A utilization of the scientific knowledge now available," says the Chamber of Commerce, "and a sympathetic cooperation in the free exchange of such information will lead to the adoption of improved manufacturing processes and do much to obviate the danger of ignorant, de-



## For Every Figure Job There is a Burroughs

Burroughs machines cover the whole range of figure operations in business—adding, billing, bookkeeping or calculating. In these four great groups, represented in the illustration above, are over 100 models.

Whether it's checking and totaling sales slips in a store; extending a jobber's invoice; giving the banker his daily balance; writing a complete bill, itemized and extended in one operation; or figuring an estimate for a contractor—Burroughs has the right machine for the job. And wherever you

see a Burroughs in service—whether in the little “one-machine” store or in the auditing department with a hundred Burroughs Calculators—you hear the same story of reliability.

—Reliability, that's built into every little piece and part—Reliability of a nation-wide trained mechanical service which is accessible to each of a half-million users.

On this individual fitness and this common reliability Burroughs world-wide reputation and leadership has been built and will be maintained.

**Better Figures  
for  
Bigger Profits**

# Burroughs

ADDING • BOOKKEEPING • BILLING • CALCULATING MACHINES

logg; his mother, Abigail Homer Kellogg. The Beechers were relatives. Abigail, the widow, it was, who became the bride of King David, and another Abigail married John Adams, first of Quincy and then of Washington. So much for Vernon Kellogg's heredity. The names here put down sufficiently portray it.

There were grasshoppers, remember, in his environment. A teacher in the high school of Emporia talked to him about birds, as the father, only less friendly, whose clients were agriculturists, had talked about grasshoppers at the supper table and of evenings in the sitting-room, under the kerosene lamp.

Before he entered the University of Kansas in 1885, at the age of seventeen, Vernon Kellogg had decided to be a naturalist, but he journeyed to Lawrence, with a promise made to his father that he would defer a definite choice of a career until a year after his graduation. Law was in Lyman Beecher Kellogg's mind, as to his son. Bugs never were. If not law, then business, such as merchandising, banking or manufacturing. Birds, unless they were domesticated, he regarded lightly, as serious studies for an earnest man.

At the university, one morning, Francis Huntington Snow, professor of mathematics and natural science, spread a half-dozen skins of birds before Vernon Kellogg. "Identify these," he ordered.

The trick was turned instantly. "Bring me others," said Kellogg. It was done. Identification followed. Vernon Kellogg knew all about the three hundred and fifty kinds of birds that lived permanently or temporarily in Kansas—the settled inhabitants and the migrators. He helped Professor Snow during his second year at the university to teach ornithology to freshmen and sophomores. He was now, in his mind, committed to zoology. He'd be, he said, but only to himself, a college professor.

At Emporia also was born, two months and ten days after that great event had happened to Vernon Kellogg himself, a son to Dr. Allen White, who was given the name of William Allen.

#### Kellogg and William Allen White

KELLOGG and White were students at the university together. White announced in effect: "After I am through here, it's Emporia for me the rest of my days. I'd rather be a noticeable person in a small place than an invisible one in a big city. I'll get a newspaper and stand by the community."

That program for his life and work William Allen White, up to date, has carried out. Before and after his graduation he wrote for Colonel Larnard's newspaper, published in Lawrence. As did Kellogg. On leaving the university, Kellogg and White became editorial managers for the colonel, who was getting along in life. "We need," he said, "new blood in our news columns. I'll look after the advertising and circulation."

They'd been reading and studying, Kellogg and White had, in the *Globe*, at Atchison, whose editor was Edgar Watson Howe, admirably known in Kansas and elsewhere as "Ed" Howe. "He's got the right idea," White remarked. "And is a great man," Kellogg rejoined.

"What we should do," White asserted vigorously, "is to make our paper so—um—interesting that the subscribers will rush outdoors and grab it up before it has time to burn the grass."

As one reader broke an umbrella on White's head and another pulled off his coat and spat on his hands, right in the

editorial rooms, the editors being present, White's policy seems to have been carried out.

Often, Colonel Larnard would mournfully say: "Boys, you ruined my breakfast this morning. I should have eaten it before I read our newspaper."

Over in Kansas City, William R. Nelson, owner of the *Star*, had been observing the improvement, as a human document, in Colonel Larnard's publication. "I'll give you \$—," he wrote to Kellogg and White, naming a seducing sum, "per week, if you will write minion paragraphs and comments for the editorial page of the *Star*."

So the fields of Elysium, nightingales warbling, roses blooming and pretty girls winking and dancing, spread out before them. "No," said White, "I am going back to Emporia." He went. And Kellogg, his promised year at an end, told his father that he meant to be a college professor. He studied at the Leipzig and Paris universities and then at Cornell, where he won the intellectual patronage of John Henry Comstock, the distinguished zoologist and professor of entomology, whose specialty he adopted for his own career as an educator and scientist.

#### Teacher for Twenty-six Years

BARELY twenty-three, Vernon Kellogg returned to the University of Kansas and began his life of teaching as assistant and associate professor of entomology. In 1894, at the age of twenty-seven, he was appointed professor of entomology and lecturer in bioeconomics (that branch of biologic science which treats of the conditions under which organisms live in their natural homes) by President David Starr Jordan of Leland Stanford University. He remained on the faculty of that university for twenty-six years, writing in the meantime many books on insects, animals and evolution. Also he fell in love with Miss Charlotte Hoffman of Oakland, to whom he was married, in the spring days of 1908, at Florence, Italy.

"Why in Italy?" he was asked.

"Well, you see," he proudly answered, "she was there (and he blushed) and I was afraid someone else might get her."

"And two years after your marriage you published 'In and Out of Florence.' Was it a book on Italian insects or animals?"

"No; on art."

"What did you know about art?"

"That's hardly a fair question. Read the book and maybe you will find out. Maybe."

After the war among the nations started in 1914, Vernon Kellogg joined Herbert Hoover and was sent to Brussels as director of the American Commission for Relief in Belgium. He was assistant to Mr. Hoover, then United States Food Administrator, in 1917-19. Later he went to Poland as chief of the mission to that country and afterward was special investigator in Russia for the American Relief Administration.

He worked in the World War under a leave of absence granted him by Leland Stanford University. Resigning from the faculty in 1919, he was elected permanent secretary and chief of the division of educational relations of the National Research Council. He is the author of six books about the war and a fine biography of Mr. Hoover.

"Man," wrote Thomas Carlyle, "is forever interesting to man; nay, properly there is nothing else interesting." Or important, Dr. Kellogg might add. Man, his environment, heredity, education, food, clothing and shelter, as well as his diseases, is now Vernon Kellogg's main study. His starting point, remember, was a grasshopper.

#### Speed Laws Abroad

AUTOMOBILE REGULATION is no easy matter, if regulations for drivers are to serve their purpose and at the same time be sane and equitable.

A committee of the lower house in the French parliament has been wrestling with the problem. As usual, there was no dearth of suggestions. One inspired citizen proposed that police officers should be stationed liberally at corners and along highways, to record the numbers of machines which exceeded the speed limit.

Another reformer proposed that manufacturers be compelled to make only automobiles which would go so slowly that they could never exceed the speed limit. This suggestion was cut short with a French phrase or two, neatly calculated to express pride in the French automobile industry.

What the new French law will provide seems yet undecided, but the chairman of the committee has disclosed the measures which he has in mind. Every applicant for an operator's license will, if he has his way, be subjected to a physical examination, especially for eyesight, sound hearing, and a nervous system staunch enough to withstand all shocks. When a driver who, despite his perfect eyesight, excellent hearing, and steady nerves, has offended against the speed regulations, he will be punished severely by the police court. If he was drunk, his punishment will be increased. Besides, his operator's permit will be suspended or revoked. Finally, to meet the situation where chauffeurs are asked by their employers to exceed the speed limit, and the employer has obtained indemnity insurance, the employer will stand in the position of co-insurer with the insurance company which carries the indemnity, always remaining personally liable for at least one-tenth of the damage done by his chauffeur.

#### Here's a Marine Boll Weevil

TEREDO NAVALIS and *Limnoria lig-norum*, two of the most disturbing elements in our large floating population, have recently become so obnoxious in exclusive waterfront neighborhoods that eviction proceedings have been instituted under the jurisdiction of the National Research Council. Tereido and Limnoria are charged with vandalism, with undermining whole communities through an insidious policy of boring from within, and with jumping board bills.

Piling for a whole wharf is soon riddled at a family feast, and wide stretches of waterfront structures have collapsed after entertaining the greedy guests—San Francisco still has an uncollected bill of \$15,000,000 against Tereido and his playmates for an orgy that lasted through 1919 and 1920. Tereido recently has turned toward New York harbor. But contrary to the ancient aphorism, a worm won't turn if you step on it hard enough, says the Committee on Marine Piling appointed by the National Research Council, and mostly the committee has been saying it with creosote.

The committee is organizing ways and means for studying marine borers, and it also plans to make a survey of conditions at American ports, with investigations on practical measures for obtaining better protection from the ravages of the borers. The entire range of materials for marine construction, including wood, concrete, and metals, will be covered by the committee's program of research. To carry on this work, the committee proposes to raise a fund of \$100,000 for the first year and a similar amount for at least two succeeding years.



## One Out of Seven a General Motors Car

SINCE 1909 General Motors has produced over  $2\frac{1}{2}$  million passenger cars of which more than  $1\frac{1}{2}$  million are now in service. There are in use 10 million passenger cars of all makes, so that at least one automobile in every seven is a product of General Motors.

It has been estimated that an average of three telephone calls are made each day on every telephone instrument; and that every automobile averages 21 miles of travel a day.

Then for comparison it may be stated that every time the telephone rings a passenger car somewhere has travelled

seven miles; or seven passenger cars have travelled one mile. And of these seven, one is a General Motors car.

The names of the passenger and commercial cars made by General Motors are:

BUICK	OLDSMOBILE
CADILLAC	OAKLAND
CHEVROLET	GMC TRUCKS

If every General Motors car carries an average of but 2 persons daily, and travels but 20 miles for only 300 days a year, there are carried over a billion passengers annually, or approximately as many as are carried by all the steam railroads in the United States.

*A booklet entitled "PASSENGER AND COMMERCIAL CARS," giving detailed information, will be mailed if a request is directed to the Department of Financial Publicity, General Motors Corporation, New York.*

# GENERAL MOTORS

BUICK • CADILLAC • CHEVROLET • OAKLAND • OLDSMOBILE • GMC TRUCKS

Fisher Bodies • Remy Starting Systems • Delco Starting Systems • Delco Light and Power Plants  
Harrison Radiators • Jaxon Rims • Klaxon Horns • Hyatt Roller Bearings • Frigidaire  
Brown-Lipe-Chapin Differentials and Gears • Lancaster Steel Products  
New Departure Ball Bearings • AC Spark Plugs

General Motors Acceptance Corporation finances distribution of  
General Motors products

# A Farm Bloc in Full Power

By WALTER E. DYMOKE

**E**XPATRIATE Americans in the Province of Alberta, Canada, have succeeded in doing what their former compatriots have so often failed in trying to do: they have grafted politics on agriculture, producing a new hybrid in representative government which promises great things. Luther Burbank in his loftiest flights never surpassed the Alberta achievement.

As the result of a coup planned by the Liberal party in 1921, which, unfortunately for the Liberals, turned out to be a dud, the United Farmers of Alberta, or "U. F. A.," as the organization is called for short, elected a two-thirds majority of the Provincial parliament which under the Canadian system meant a complete change of "government," as those Canadians will persist in calling an administration, and a solid delegation to the Federal parliament at Ottawa.

In Eastern Canada I was told that those Alberta farmers had set up a class government which simply could not endure. The severest criticism of the new government heard within the boundaries of the Province was that the farmers were doing no better than the professional Liberal politicians had done. Judging from the assurance of those implicated in the government and from casual observations during a trip up and down and across the Province, the new regime is doing as well as could be expected.

## Americans Started It

**A**LTHOUGH the ideas which grew into the United Farmers of Alberta, the organization that turned the Liberals out, were originated, developed and directed by former American citizens, now become British subjects, every office in the new government, from that of the Premier, Herbert Greenfield, sixteen years out from London, down to that of the janitor of the capitol at Edmonton, is filled by Englishmen or native Canadians. Salve for wounded American pride may be found in the fact that the organizer of victory, the President of the U. F. A., was for six years and still is, a lean and hungry Cassius from Missouri.

What mystifies the orthodox American mind is that those Albertans from the United States seem entirely satisfied with the distribution of offices. If you can believe what you are told the overturn was not for spoils at all. It was a successful effort, they say, to substitute cooperation by organized democratic groups in true representative government.

While the farmers are in full control of the Alberta government they deny that they expect, intend or desire to run things for the sole benefit of their own class. On the contrary, they are opposed to class govern-

ment. They want true representative government, instead of party government.

The only way to give the great majority a fair show in representative government is through the medium of organized social groups; that is, farmers in one group, artisans in another, trades people, manufacturers, professional folk and others each organized in their respective groups. The only efficient type of organization ever devised, so the U. F. A. believe, is the military. Ten men organized as a military unit can rout twenty times their number in an unorganized mob. Political parties are nothing but mobs. To put them out of their misery organize social groups with military thoroughness and the thing is done.

As the most numerous social group in the Province the United Farmers of Alberta put their theories to the test. The scheme worked so smoothly and well that the Liberals, who had had control of the government ever since it was first established, are still wondering what happened. Further to exemplify their theories the United Farmers celebrated their victory by inviting the only other organized group, Labor, to join in forming a government.

Canadian farmers have been organizing for various purposes for the last twenty years, nearly always with brilliant success. More than a third of the Dominion's grain crop, for example, is marketed by a corporation under the exclusive ownership and management of farmers at a very substantial profit over and above what they could possibly obtain for their crops by any other means. And the Provinces of Ontario, Manitoba and Saskatchewan have farmer governments, too, for that matter. The things that make the United Farmers of Alberta especially interesting is that it is the latest improved model of farmers' organizations; that it has conducted the most artistic and successful political campaign; and that its success in conducting the government has been greater than that of any of the others.

The genesis of the movement which resulted in the novel experiment in Alberta dates back to 1905 when a group of Nebraska farmers recently settled in the Canadian West met at the Poplar Lake schoolhouse a few miles North of Edmonton and formed the Canadian Society of Equity. About the same time the Alberta Farmers' Association was organized in the same vicinity with D. W. Warner, from Dixon County, Nebraska, now a member of Parliament and the wealthiest man in Northern Alberta, as President. These two organizations were formed to deal with the problems of obtaining markets for pork and beef, of the grading of grain, of dockage at elevators, of transportation facilities, of loading platforms, the proper fencing of railroads, the provision

of fire guards, better roads, bridges and ferries, new branch railways to serve the settlers and numerous other things of general interest.

Soon the resolutions they forwarded to the Federal and Provincial governments began to attract attention. Some results were obtained, but opposition and discouragements were great. The farmers were organized, but not efficiently. In 1909 the two organizations were amalgamated to form the United Farmers of Alberta. At the end of the first year there were 122 locals with a total membership of a little more than two thousand. Eleven years later there were 1,251 locals with a total membership of 33,172. Now the membership is 38,000.

## Getting Things Really Done

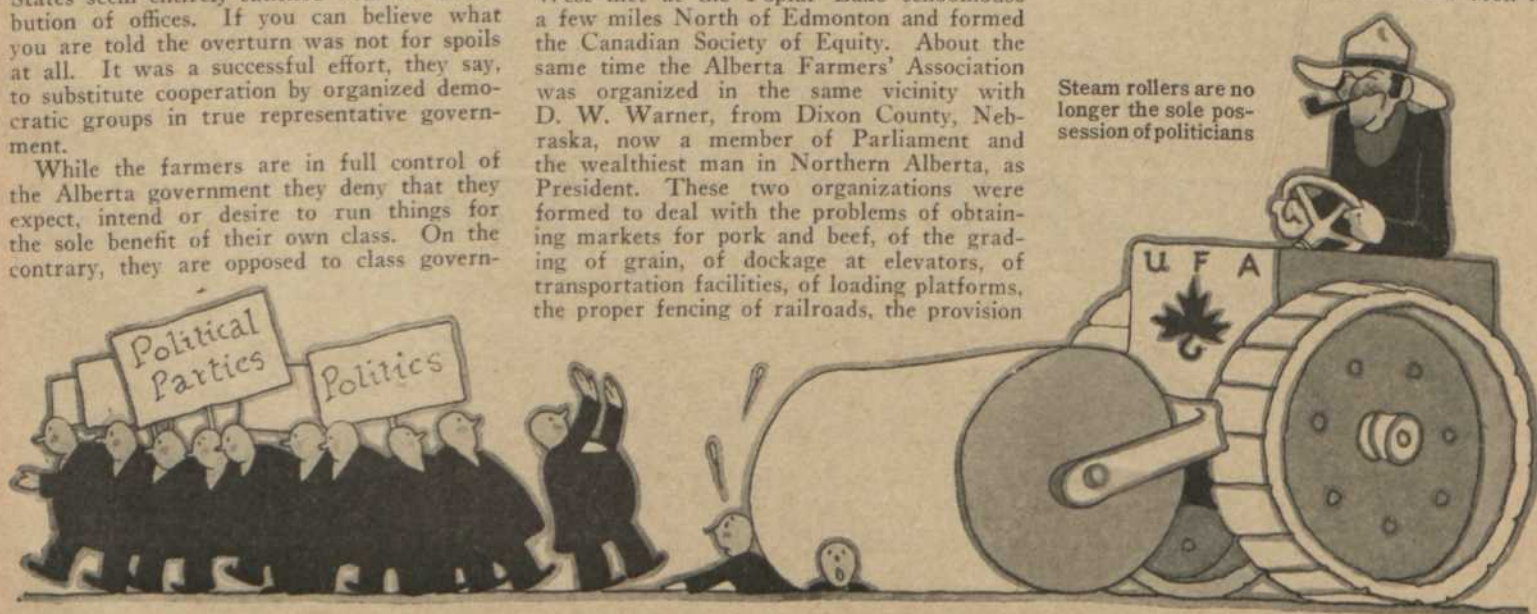
**D**URING these years of steady development the influence of the organization found expression in the building up of cooperative institutions, in the promotion of much progressive legislation and in the training of its members in the work of public service.

The feature of the United Farmers movement on which its amazing success is founded is the frequent meetings of the locals. While not called by that name these local meetings were nothing more nor less than schools for citizenship. Members were not merely invited, but were required, to take an active part in the discussion and study of economic and political questions. To put it another way, they were drilled with military thoroughness on public questions until they knew exactly what they wanted and had a pretty definite idea of how to get it.

The farmers did not stop at an organization for themselves. They founded the United Farm Women of Alberta for their wives and daughters and a Junior branch for the youngsters under 16, the professed objects of which are "to train for leadership, for citizenship, to enable the young people of the community to know each other better and to make life happier and better so that the young people may serve their homes, their communities and the nation more efficiently."

With an organization embracing every member of the family working steadily to a given end the United Farmers were soon in

Steam rollers are no longer the sole possession of politicians





## Lighting lessened labor turnover in the Willard plant

"We were at one time confronted with a problem of reducing labor turnover in one department. The dingy, depressing appearance of the room reflected upon the attitude and production of employees. After re-lighting, the turnover materially decreased and the morale of the men was raised to a high productive plane. Improved installations in other departments have confirmed our belief in good lighting as a means of decreasing labor turnover".—A. R. Herske, Power Superintendent, Willard Storage Battery Company, Cleveland, Ohio.

Send for the "Ten Thousand Dollar Test Book", telling how to make inexpensive improvements in lighting, and giving the experience of well-known manufacturers who have lowered unit labor cost, improved product, and decreased labor turnover through proper use of light. Direct your inquiry to National Lamp Works of General Electric Company, Nela Park, Cleveland, Ohio.



Each of these labels represents a Sales Division equipped to give a complete lighting service.

IF your lighting falls short of the specifications of the recipe below in any particular, it's time to think of re-lighting. Ask the man who supplies your National MAZDA lamps for his recommendations.

### How to Light Your Factory

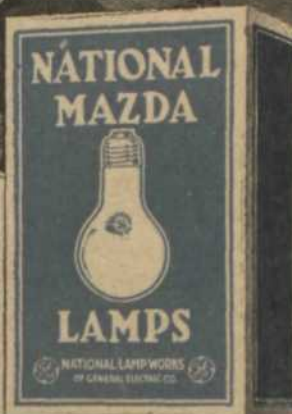


RLM STANDARD  
REFLECTOR

BOWL-ENAMELED  
MAZDA LAMP

Use 200-watt bowl-enameled MAZDA lamps in the RLM type metal reflector shown above. Space 10 feet apart.

NELA PARK, Cleveland, is a "university of light" dedicated to improvement in lamps and progress in the art of lighting. It serves 24 factories, 17 Sales Divisions and 15,000 dealers in the production and marketing of 98 million National MAZDA lamps annually for use in homes, offices, factories, stores, streets, railways, flashlights, and automobiles.



# NATIONAL MAZDA LAMPS



**ARE** you going to Europe this year? Now is the time to make your plans. Naturally you will prefer to sail under the American flag and before making a decision you will *investigate* American ships.

When you have investigated you will be proud of your Merchant Marine. You will be happy to join the thousands of enthusiastic boosters of American ship and American service at sea.

### Investigate Today

Your Government invites you to do so now. Simply fill in the information blank below and mail it to the United States Shipping Board. Americans who have traveled on U. S. Government ships are unanimous in their praise of the superior service, wonderful meals, smooth sailing, and luxurious accommodations. Rates have recently been reduced but not one jot of luxury or service has been sacrificed.

### What you will receive—

A handsomely bound booklet showing actual photographs of the luxurious interiors of *your* ships: A full description of the Government Ships operated to Europe by the United States Lines: Information about the chief events of interest in Europe in Spring and the low prices that now prevail. Send the blank today—now. You will be under no obligation whatever.

**INFORMATION BLANK**  
To U. S. Shipping Board  
Information Section 2112 U. S. Washington, D. C.

Please send without obligation the U. S. Government Booklet giving travel facts and also information regarding U. S. Government ships. I am considering a trip to Europe ☐ The Orient ☐ South America ☐.

If I go date will be about \_\_\_\_\_

My Name \_\_\_\_\_

My Street No. or R. F. D. \_\_\_\_\_

Town \_\_\_\_\_ State \_\_\_\_\_

## United States Lines

Moore and McCormack, Inc. Roosevelt Steamship Co., Inc.  
45 Broadway New York City  
110 So. Dearborn St., Chicago, Ill. 92 State St., Boston, Mass.  
155 Congress Street West, Detroit, Michigan

Managing Operators for

# U. S. SHIPPING BOARD

a position to achieve their ultimate aim, which was political action as an organization, using the votes of all the members cooperatively. Steps were taken at the annual convention in January, 1919, providing for setting up political machinery in each Federal constituency by means of a convention of all locals in it. In less than six months each Federal district was fully organized, with officers duly elected, to carry on political or any other U. F. A. activity.

Political machinery had barely been set up when, in 1919 the death of a member of parliament in the constituency of Cochrane necessitated a by-election. On the shortest possible notice the U. F. A. held its convention and nominated a candidate to contest the seat. Every member of the Provincial cabinet and all but three Liberal members of parliament went into the Cochrane Riding to participate in the campaign, but when the ballots were counted it was found that the U. F. A. candidate had won.

The next trial of strength came in June, 1921, when there was a Federal by-election in Medicine Hat in the extreme Southeastern corner of the province. Smarting under the memory of the Cochrane defeat the Liberals resolved this time not to make the mistake of underestimating the enemy's strength. Lt. Col. Nelson Spencer, an officer who had distinguished himself in the war, regarded as the strongest man in the district, was put forward as the Liberal candidate.

### A Matter of Money

**T**HE farmer's candidate was Robert Gardiner, a dour Scotchman, who had mailed the first invitations to the farmers to organize nearly twenty years before. Gardiner positively refused to extend the glad hand to any one.

Liberal money was spent so freely that people began to take notice. At a joint debate in Medicine Hat some one in the audience called out to Col. Spencer:

"Who pays your election expenses?"

"Quite a number of friends have subscribed. I don't know just who they are," he replied.

This gave Herbert Greenfield, the U. F. A. speaker, now Premier of Alberta, an opening. Stepping to the front of the platform he said:

"I can tell Mr. Spencer exactly where the money came from to pay Mr. Gardiner's expenses. Every man in this room has paid one dollar to support Mr. Gardiner." He referred to the assessment levied on members of the United Farmers for election expenses.

On election day the highest ratio of votes to registration on record went into the ballot boxes. Gardiner received 13,133 votes, Col. Spencer 3,369. The Liberals acknowledged an expenditure of \$23,000 in the election, the United Farmers spent \$2,683.

No Provincial election was expected in 1921. Statements made by the Premier and other cabinet ministers in parliament amounted to a promise that there would be no election until after another session had been held. But the result of the Medicine Hat by-election, following hard upon a similar event at Cochrane was too ominous to be disregarded. Obviously the Liberal politicians in the Provincial government were seriously alarmed, for there were frequent rumors in June of an impending election. Still, very few took these rumors seriously in view of the public statements by the Premier and others and in view of the insistence by the Government press that there would be no election.

Without any warning writs were issued

for an election on July 18, the election being called in the shortest possible time allowed by law, about three weeks. When the writs were issued the United Farmers were organized for political action in only twelve "ridings." But so perfectly were the farmers drilled, that in ten days forty-four ridings were politically organized and forty-four candidates were placed in the field. Thirty-eight of these candidates were elected, nearly all of them by record votes.

In accordance with the Canadian custom the triumphant farmers immediately "formed a government" with Herbert Greenfield, their chosen party leader, as Premier and the Liberals stepped down and out. The new Premier has consistently lived up to the motto,

"Never take your Conservative foot from the ground until you are sure where you are going to put your Progressive foot."

An interesting feature of the Alberta farmers' government is that a woman is included in the cabinet. The Hon. Irene Parlby, of Alix, Alta., a highly cultured English-woman is minister without portfolio, the second woman in the British empire to fill a cabinet position and the first to be chosen immediately after election. Premier Greenfield has said that he feels that his government would not be complete without at least one woman to speak for her sex on matters of public interest.

Mrs. Parlby was the first president of the United Farm Women of Alberta. She played an important part in the establishment of the system of rural hospitals and rural nurses which, although begun under the Liberal government, is credited to the United Farmers.

### Greenhorns in Politics

NONE of the ministers had previous cabinet experience and a majority in common with most of the other members of the parliament had no previous legislative experience. In spite of this the new government started off with a highly creditable record demonstrating a knowledge of the needs of the Province and a capacity for hard work that made up for any lack of parliamentary technique.

It is alleged in its behalf that the farmers' government has effected a material reduction in expenses thus making possible a reduction in taxes; that it has cut out a lot of useless work and introduced efficiency in the civil service.

It is contended by the United Farmers of Alberta that the organization has among other things:

Awakened the farmers to a realization of their importance and responsibilities as Canadian citizens, so that U. F. A. members are now taking the lead in school, municipal, provincial and National affairs.

Done much to relieve farm life of its isolation and to brighten the lives of farm folk.

Furnished the young farm people with an organization through which they may become interested in the improvement of rural conditions, develop a richer and fuller social life and train for citizenship.

Provided an organization through which the foreign population may expect the same fair and just treatment as is extended to all other classes of Canadians, being assured that the organization is anxious to cooperate with them for the advancement of mutual interests.

Originated with other Provincial farmers' organizations the Canadian Council of Agriculture which now represents almost completely the farmers of Canada.

Originated the United Grain Growers, Ltd., the world's biggest farmers' company.

Established a legal department to give com-

## 1¼ Million Horse Power

is the capacity of steam power stations designed and built by Stone & Webster. This includes ¼ million horse power in stations now under construction.

### STONE & WEBSTER

INCORPORATED

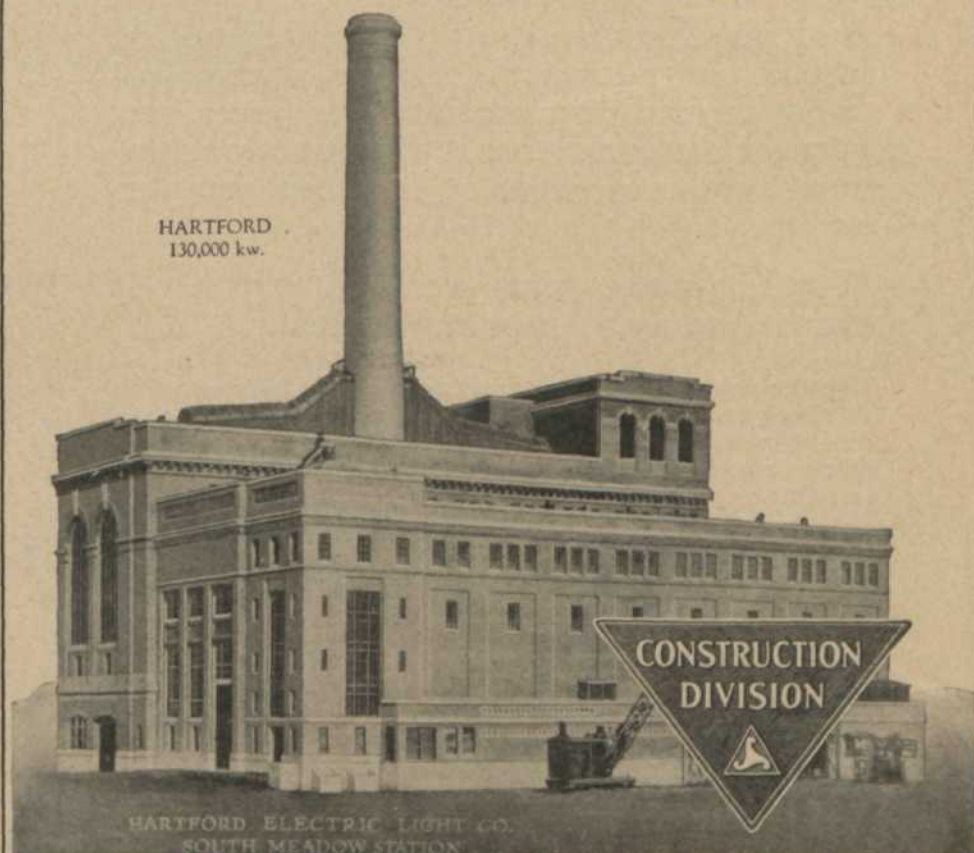
BOSTON  
CHICAGO  
SAN FRANCISCO

NEW YORK  
PITTSBURGH  
PHILADELPHIA

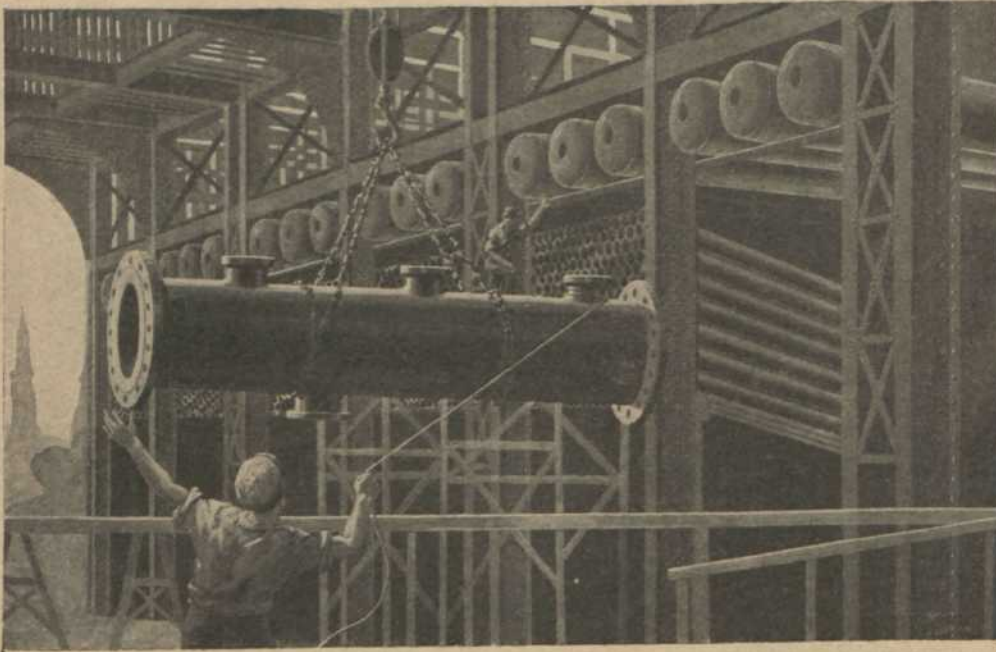


BATON ROUGE  
1,500 kw.

HARTFORD  
130,000 kw.



HARTFORD ELECTRIC LIGHT CO.  
SOUTH MEADOW STATION



## ENDURING

**W**ILL your power piping system last one, two, three, four years—or how long? How long before minor repairs must be made? And then extensive repair work?

One vital reason for coming to us for your piping work is the reputation we have for making installations that endure. Hard service, long service,—against these both a *National* job will stand up admirably.

And another thing—if the power system installed in your plant is designed in conjunction with your own consulting engineer, you have the assurance that it will embody all the most advanced ideas of a rather complex science.

Why not make yours a system which endures—through *National* Service?

*We have just issued a very valuable and exhaustively complete text book on Piping Equipment—and shall be pleased to send a complimentary copy (upon request for Catalogue 5A) to those officials who are or who may be called upon to discuss and to solve piping problems.*

**National Valve & Manufacturing Co.**

3100 LIBERTY AVENUE  
PITTSBURGH, PA.

Chicago  
Cleveland

New York  
Indianapolis

Philadelphia  
Atlanta

**NAVCO National NAVCO**

petent and unprejudiced advice to farmers on matters of law.

Established a trust and estates department by which farmers' estates may be economically and equitably administered in the best interest of the beneficiaries.

Helped to organize and secure better prices for milk and cream shippers.

Assisted in the marketing of eggs and poultry by encouraging the establishment of egg marketing circles.

Secured the municipal hail insurance act.

Secured an increase in the price fixed for wheat in 1917 of 91 cents over the rate originally proposed, an achievement which meant \$192,877,000 more for the farmers for the crop of that year.

Provided means for communities to cooperate in establishing rest rooms for the use of country women, secure permanent and traveling libraries, institute school field days and school fairs, serve hot lunches to school children and engage in other activities for the improvement of community life.

These are only a part of the achievements credited to the United Farmers of Alberta, but perhaps they are sufficient to show the character and scope of the organization. A further exposition of U. F. A. aims may be found in H. W. Wood, President of the organization for the last six years, in whom they are incarnate.

Wood is a very tall, slender man with a bald head, brown eyes, resonant voice and studious mien. He joined several farmers' organizations in his native Missouri in the '90's only to see them go to pieces one after another whenever they attempted to accomplish anything in politics. In disgust he joined the American hegira to Canada in 1905, settling at Carstairs, Alberta. In 1911, he became a British subject. He is modest and retiring, describing himself as "Just a plain, everyday farmer who has done considerable thinking relative to the social life and well-being of his fellows."

### Yankee Gas for Canada

**H**IS political opponents have tried to capitalize his American origin against him by stigmatizing him as "That Yankee from Missouri," alleging that he was "trying to gas Canada with Yankee ideas, calculated to bring about annexation."

In the course of a long conversation in his office at Calgary, Mr. Wood said, among other things:

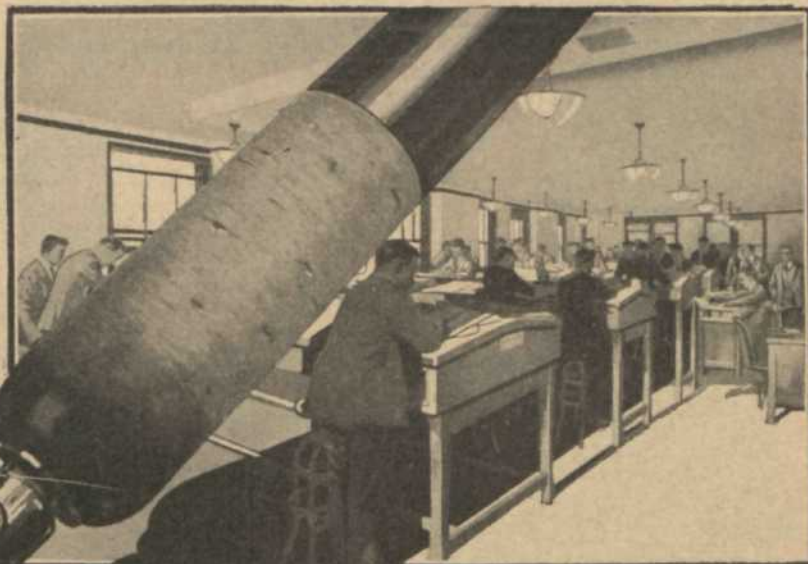
"The greatest antagonism we have encountered is because we have organized on an economic class basis. For two years I have been challenging any man to name any other basis on which we can organize. Plutocracy has organized its forces on that basis. Democracy is just beginning to organize."

"Alberta is primarily agricultural. Half the people belong to the agricultural class. Therefore the farmers should be the central group. We have 1,500 locals, 400 of which are for women, and 100 are juniors. Most of our meetings have been held in school-houses; but we are building nearly one hundred community halls, some costing ten to twelve thousand dollars each and a few even more. The women specialize in local affairs. The Juniors carry on community work, principally to make social conditions better."

"We had kept out of politics until 1919; then when we realized that the time had come to act, and that we were fully prepared, we decided to go in strictly as an organization. In the 1921 campaign our 38,000 members met and chose delegates who carried out the wishes of the members."

"Then we put our cards on the table and

# Underwood Accounting Lifts the "Shadow of the Pen"



Actual photograph of the Guaranty Trust Co. Bookkeeping Department at present, showing installation of 23 Underwood Bookkeeping Machines.

Drawn from photograph taken in the Bookkeeping Department of the Guaranty Trust Co., before the installation of Underwood Bookkeeping Machines.



"We feel that the machines are a demonstrated success, resulting in economy for the company, better working conditions for our employees and better service to our customers."

*Jack Russell*

Vice-President,  
Guaranty Trust Co. of N. Y.

**U**NDERWOOD ACCOUNTING supplants the slow hand with the quick machine; it substitutes mechanical accuracy for human fallibility. In every way it modernizes, it standardizes, it cuts costs.

And more—it helps the executive keep per-

fect control over the business by providing for his study up-to-the-moment figures that show dependable facts as they *are*, not treacherous facts as they *were*.

In all kinds of businesses, the Underwood Bookkeeping Machine has lifted "the Shadow of the Pen."

Underwood Typewriter Co., Inc., Underwood Building, New York  
*Branches in all principal cities*

## UNDERWOOD Bookkeeping MACHINE

UNDERWOOD TYPEWRITER CO., INC., Underwood Building, New York

N. B.

☐ Send Underwood Bookkeeping Machine representative from nearest branch office.

☐ Send a copy of "Taking Industry out of the Shadow of the Pen."

Name \_\_\_\_\_

Address \_\_\_\_\_





## Let the Rand Man Give You the Facts

IT is the practical "dollars and cents" economy of Rand Visible, Picturized Records that appeals to business men. That important information is made instantly available; that high light facts can be charted and pictured on each record with Rand Colored Signals; that greater speed is realized in making references and entries, while the up-keep cost is greatly reduced,—all mean a closer control of each day's business activities.

Ninety Thousand satisfied Rand users in all lines of business, are proof of Rand serviceability. Ask the Rand Man in your territory for the money-saving facts about Rand Visible, Picturized Records, or, Address: Rand Company, Inc., 1802 Rand Building, North Tonawanda, N. Y.

# RAND

## VISIBLE CARD SYSTEMS

ASK ANY BANK OR BUSINESS CONCERN ABOUT RAND

said to the voters who did not belong to the organization, 'investigate and see what we have. It is not your privilege, it is your duty, to vote for the opposing candidates if you think they are better.' In the Dominion election Alberta polled 96,000 votes, of which 38,000 were those of our members, while a large majority of the others were for our candidates.

### It Stirred City Folk, Too

TEN times more city folk, aroused by the work of the farmers, took part in conventions than ever before, although it was hard to get them to organize. There were not enough to form other effective social groups, which is the only democratic way to exercise citizenship; it cannot be done as individuals.

"The Non-Partisan League made a bid for the United Farmers' organization, but it was very promptly sent about its business. There is no sense to that outfit. I have tried to reason out the cause for the instability of former farmers' organizations. You could fill a graveyard with epitaphs on farmers' organizations that have come and gone.

"One fact stands out clear: none has survived the taking of political action. The fatal weakness of them all has been political hysteria. Heretofore the farmers have invariably deserted their primary organization, the source of their strength, have made one political attempt on an unstable basis and have invariably failed on their second attempt, to find that their primary organization had gone to pieces.

"We have overcome that weakness in Alberta by taking political action as the United Farmers' organization, instead of deserting the organization to take political action.

"We in Alberta believe that before social problems can be dealt with intelligently the people must build themselves into stable social groups. When this is done by systematic, long-continued organization the people can be developed to a higher level of citizenship and thus become efficient social forces."

### Rheumatism Cure or Soap

UNDER the heading "How Not to Advertise," the official Canadian *Commercial Intelligence Journal* cites, for the benefit of its export readers, the following "example horrible" taken from present-day British experience:

Quite recently the manufacturers of a largely advertised British soap (writes a friend in Barcelona to a correspondent of the *Manchester Guardian Commercial*) arranged with leading stores for entire windows to display their goods. The packets of soap attracted considerable attention, curiosity was aroused, and crowds eagerly examined the novelty. At the back of the goods were large advertisements of the peculiar merits of the soap, but all printed in English. Not one in the crowd knew a word of English, and the product was thoroughly discussed. Some proclaimed it a new edible (it was in powdered form), others an effervescent drink, whilst an elderly lady who looked and posed as an authority unhesitatingly pronounced it as a splendid cure for rheumatism. Sales have not been up to expectations.

### The How of Government Contracts

GOVERNMENT contracts are subject to many statutory provisions. The Bureau of the Budget has recently published a compilation which is intended to set out the principal statutes dealing with contracts made by the federal government.

# Tying the College to Industry

By A. A. POTTER

Dean of Engineering Schools, Purdue University

THE State Engineering University can be compared to a three-story building. Its main and most important story is concerned with teaching, but the instruction, to be most effective, must be supported by engineering research work and must be expressed by public service and by engineering extension activities of value to the industry and the public.

There is a greater realization at present than ever before of the value of technical education, of technical research and of a system of public service of benefit to industry. Technically trained engineers are not only welcome in industry but are being sought. It is realized that men with such training are dependable and have a clear insight into the scientific principles upon which industry is based.

In the days past when the wants of men were few, when the necessities of life were produced by hand labor, when the home was the educational center as well as the social and industrial center, the independence of the industrial worker made his education of no concern to the public. The interdependence of modern life and the difficulty of keeping our industrial structure and our social organization properly balanced makes the future of our country dependent upon the type of education our young people are receiving in our schools and colleges.

## Teaching Men Not Subjects

AT Purdue, whose engineering graduates number more than 4,000, the greatest emphasis is placed upon the teaching of men and not of subjects. The courses of study are arranged so that the instruction can be based and built upon each student's ability, aptitude, knowledge and experience. To carry out this program best, each student is tested and rated at regular intervals throughout his course. He is guided in finding himself, and the courses of study are administered so that the student's talents are discovered and developed.

Educational institutions in nearly all cases rate students only on academic performance, and the grades given are only a measure of brains and application. This system is not an indication of the student's personal, moral or social traits and does not fully show the effect of the course of study upon the development of a student.

It is not the intention to minimize the importance of scholarship. As a matter of fact, the grades received by students at school and college have a very definite bearing upon their success in business and in profession. The outstanding engineering student has many times better chances to become famous in his profession than the student who graduated at the bottom of his class.

The educational effect of personnel rating, however, when added to the academic rating system, is considerable and for the following reasons:

1. The knowledge that one is being rated periodically encourages self-analysis and provides an incentive for self improvement on the part of the student.
2. The exceptional man can be discovered by a combination of personnel and academic ratings.
3. Carefully kept personnel ratings do away

with the old-fashioned methods of teaching which follow a beaten path, relying upon the theory that there will be a "survival to the fittest." Without a carefully kept rating system, colleges have in the past been guilty of dropping high-grade men who could not substitute memory for thought and graduating others who had highly trained memories but lacked initiative, thinking power and other qualities so essential in modern industry.

4. A carefully kept system of academic and personnel ratings enables the prospective employer to determine whether a certain college graduate will meet the specifications for a given vacancy.

The Indiana Manufacturers' Association has been cooperating during the past two years with Purdue University in developing a unique personnel system. This system is carried on in the following manner:

Each engineering student is requested to give at regular intervals the names of fifteen or more references who know him best. These references must be selected from three groups, including teachers, students and acquaintances outside of the university. Each reference is requested to rate the student on: Address and Manner, Attitude, Character, Cooperative Ability, Disposition, Health, Initiative, Leadership and Mental Caliber. Other information of value in determining the students' aptitudes is also secured and the results are summarized on printed forms.

Each student is interviewed at regular intervals concerning his personnel record, his deficiencies are called to his attention, and he is constantly impressed with the fact that good qualities of personality can be developed by observation, self-analysis and by constant effort. The engineering student is urged to develop qualities of leadership, but is guarded against becoming too individualistic or too conventional in dress, in appearance, or in mannerism.

## Other Records Than Athletic

THE personnel records have been of utmost value to Purdue University as well as to industry in recommending engineering students and graduates for positions. Purdue University graduates about 300 engineers per year. In spite of the industrial conditions all over the country, little difficulty has been experienced in placing these men. One large public service utility, after examining the personnel records of the senior class last spring, decided to offer places to thirty-six men. Letters have been received by Purdue University from many of the most prominent employers of engineers commending the results obtained in bringing the man and job together.

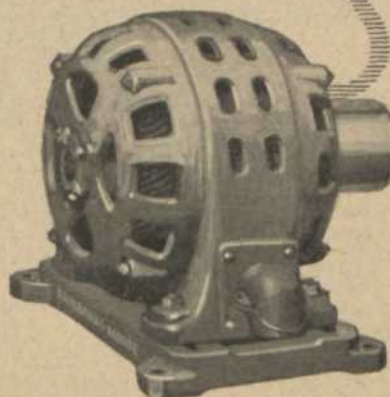
Purdue University does not lose contact with its engineering students after they graduate. After a long enough time has elapsed to give the graduates opportunity to show what they are made of, a "Progress Report Blank" is sent to their employers.

Letters and remarks by representatives of different industries indicate that the "Personnel Record System," which was developed by Purdue University with the cooperation of the Indiana Manufacturers' Association, has more than justified the cost of maintaining it.

Besides the personnel records, a modified

FAIRBANKS-MORSE

ball bearing



motors

Reduce power bills, practically prevent shut-downs due to bearing trouble, cut production costs. Operate equally well at any angle on floor, wall or ceiling without change or adjustment

FAIRBANKS, MORSE & CO.  
CHICAGO · Pioneer Manufacturers

of ball bearing motors

# Always Good- Now Better than Ever



## The Complete FEDERAL Line

**FOR** 12 years Federal trucks have been giving dependable service at remarkably low cost. They have built the Federal reputation, a nation wide organization, and a company that is one of the soundest financially.

The Federal line has always been good but now it is better and more complete than ever. Ask Federal Distributors why.

### FAST EXPRESS

A sturdy, fast, economical, light duty truck.

1 to 1½ TONS

With pneumatics for fast service or with solid tires.

2½ TON

Users say it is the best 2½ tonner built.

3½ to 4 TONS

With stamina and an abundance of power for hard jobs.

5 to 6 TONS

For power, unsurpassed by any size or capacity truck anywhere.

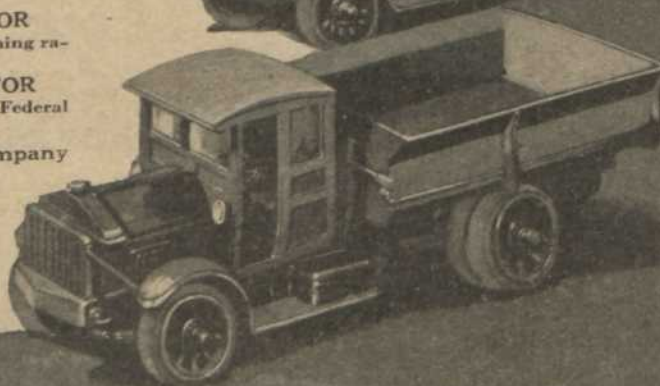
### LIGHT DUTY TRACTOR

It has exceptionally short turning radius and ample power.

### HEAVY DUTY TRACTOR

For heavier loads than the Federal Light Duty.

Federal Motor Truck Company  
Detroit, Michigan



Another

# FEDERAL

*Means Another Satisfied User*

army intelligence test is being given to the engineering students of Purdue University. It is expected that a combination of the personnel records, army intelligence tests and scholastic grades will form a good basis in judging the student's ability and talents.

The following methods are also employed in humanizing engineering education at Purdue University:

1. Students often fail in their studies because they cannot see any relation between their school work and actual life problems. To correct this and to interest the student in his studies, the engineering student is brought in contact just as he enters Purdue with problems which have a direct bearing upon the welfare of the state and country. These deal with actual situations calling for action directed toward a certain goal and train the student to act quickly and to calculate accurately while at the same time acquainting him with engineering materials, machinery and processes.

2. Teachers are at fault if they fail to teach their students how to study and how to work in a systematic way without lost motion. Observations show that few students who come to a university know how to study. This is being corrected by teaching every freshman engineering student how to study, impressing him with the fact that education is only of value if it is developing his wisdom and thinking powers, his sense of justice and his judgment.

### Best Teaching for Freshmen

3. Universities and colleges have been justly criticized because their best trained professors come in contact with only a small number of advanced students, while the immature student is taught by poorly trained and inexperienced instructors. This situation is being corrected. The best trained professors come in contact with the freshman and sophomore students.

4. In the past engineering colleges have devoted all of their attention to the training of men who design, build and operate plants and engineering works. The modern engineer must be able to deal not only with the technical phases but must also be in a position to cope with the administrative and commercial problems of industry. To meet this situation more attention than ever before is given in Purdue University to studies which will enable the engineer to appreciate human and economic problems.

5. Scholarship is stimulated in the engineering schools of Purdue by recognition and reward. If a student excels in his studies, publicity is given to his achievement in his home town papers as well as in the university papers. Too little encouragement has been given in the past to the good student, and many began to feel that athletics is the only road to fame.

Besides training engineers, Purdue University has in the past utilized its staff and equipment to solve the problems of value to industries, public utilities and the public works of the state. The researches in engineering are carried on in the Purdue Engineering Experiment Station, which bears the same relation to the industries and public utilities of Indiana as does the Purdue Agricultural Experiment Station to agriculture.

In this research activity a committee of the Indiana Manufacturers' Association and one of the American Railway Engineering Association are closely cooperating with the staff of the Purdue Engineering Experiment Station. These committees visit the university at frequent intervals and give advice and suggestions concerning researches of value to the state and to the nation. During

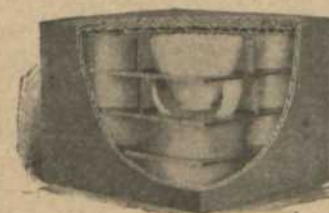
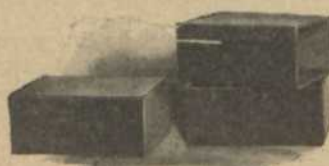
## Says the Customer to the Retailer

**I**n the March issue: Mrs. Alice Ames Winter, President of the General Federation of Women's Clubs, will tell what women think when they buy. This article is No. 3 of the important *Distribution Series*, now running in *The Nation's Business*.

Extra copies of the article can be obtained after February 24 (the March issue publication date) at moderate reprint prices.

**The NATION'S BUSINESS**  
Washington, D. C.

# PROTECTION *plus~*



## Let A&D Board Safeguard Your Daily Shipments

**T**HE package itself. Do you realize that it often wields a very real influence in modern selling? Boxes—and methods of packing—play important parts in today's keen merchandising. They can gain, or dissipate, preferences for your product. They can make, or lose, sales.

Study the packing method you employ. Are the boxes that make up your shipments clean looking and impressive? Do they deliver your products undamaged—as fresh and unsoiled as the day they were shipped? Are they convenient packages for your dealers and distributors?

For over thirty years the H & D laboratories have been devoted to the study of packages and shipping cases for almost every field of manufacture. The sturdiness of H & D Board, its rigid yet cushion-like construction, its toughness, lightness and low-cost, combine to make it the ideal box material for the great majority of items requiring containers. Among

H & D products you will find boxes of every size and shape, shipping cases up to 90 lbs. capacity, partitions, wrappers, box wall liners—everything that shippers may require.

If you are interested in cutting your packing costs and bettering your packing, mail the coupon. It will bring you our catalog of box styles and packing materials and full information regarding our box designing service which is free to manufacturers.

**Mail  
the  
Coupon**

The Hinde & Dauch Paper Co.  
304 Water St., Sandusky, Ohio

GENTLEMEN:

Send us your box catalog and full information regarding your free box design service.

Name.....

Firm name.....

Address.....

City.....

We ship (name products).....

## The Hinde & Dauch Paper Co.

304 Water Street

Sandusky, Ohio

Canadian Address: Toronto, King Street Subway and Hanna Avenue

# CO-ORDINATION

**F**OR strength and durability, a great bridge must have a large margin of safety. Every part must be stronger than is necessary; and the co-ordination of parts must be perfect.

The Continental and Commercial Banks form a "financial bridge" across which individual banking transactions move in great volume.

In order to make these banks a unit of outstanding strength and enduring usefulness, every part has been wrought out of the soundest methods and the most useful services. All departments and facilities are co-ordinated into an institution capable of carrying with safety, convenience, and dispatch a large moving volume of business.

*The* **CONTINENTAL and  
COMMERCIAL**  
NATIONAL  
BANK  
CHICAGO

*The* **CONTINENTAL and  
COMMERCIAL**  
**BANKS**  
CHICAGO

Complete Banking Service  
More than \$55,000,000 Invested Capital

the past year the following researches of value to the state and to the nation have been carried on in the Purdue Engineering Experiment Station:

1. A new process for the manufacture of ozone from the air by electrical methods has been perfected, patented and is now the property of Purdue University. This new process gives a yield of ozone of high concentration much in excess of other methods now in use. Purdue University will license, on a royalty basis, the manufacture of ozone by this new process.

2. Considerable progress has been made in the improvement of the carburetion of liquid fuels for automobiles. One bulletin dealing with this subject is now available. Two other bulletins will go to press in the near future.

3. Much data have been accumulated regarding the flow of water in pipes and fittings. One bulletin on this subject is now available for distribution. At least one other bulletin will be ready for publication in 1923.

4. Considerable progress has been made in tractor standardization. A bulletin on this subject will go to press during 1923.

5. Important experiments are now being conducted on the fatigue of concrete. These experiments are being carried on in cooperation with the U. S. Bureau of Public Roads and should prove of value to the nation's road building program.

6. Researches are also being conducted on high voltage electric transmission, mechanical atomization of liquid fuels, locomotive sparks and new devices for increasing locomotive economy.

## A State Helping College

**T**HE third important function of Purdue University is to aid those in the industries, utilities and public works of Indiana who are unable to avail themselves of the resident instruction at the university.

For many years Purdue University has been conducting, at Lafayette, road schools for the benefit of the road superintendents of Indiana. The road school in the year 1921 had an attendance of nearly 400 representing 89 counties of Indiana. More recently similar short courses have been started at Purdue for men engaged in the telephone plant work, in foundry practice, in the canning industry and in electric meter repair work.

Among the other engineering extension activities of Purdue may be mentioned the co-operative work with the State Highway Commission, the Indiana Sand and Gravel Producers' Association, Master Car Builders' Association, Indiana Flood Commission, Indiana Public Utilities Commission, and more recently the Conservation Department of Indiana.

The engineering extension program of Purdue University is being greatly enlarged during the present year by giving increased attention to the foundry and steel treating problems of Indiana industries. It is hoped that in a few years this type of engineering service will be available for all types of manufacturing as well as for the utilities of Indiana.

Closer contact is being constantly established between the industries of Indiana and Purdue University. In these engineering extension activities the Educational Committee of the Indiana Manufacturers' Association is also playing a prominent part by advising the engineering staff of Purdue as to lines of service most needed by the industries of Indiana. The Indiana Manufacturer's Association, through its secretary, has also cooperated to the extent of bringing the engineering service offered by Purdue University to the attention of the manufacturers of Indiana.

# The Quiet 12



Speaks only in a whisper but will be heard around the world

## Other Important Items of the Remington Typewriter Line

*Improved Self-Starting Remington No. 10—*  
the Standard Correspondence Machine. Sells for \$7.50 less than the new Model 12, and is highly satisfactory under all conditions where quiet is not a prime consideration.

*Improved Remington No. 11—*  
with Key Set Decimal Tabulator. For form, tabular and statistical work of every description.

*Remington Accounting Machine—*  
with vertical and cross adding mechanism. For billing, statement writing and bookkeeping in all its branches.

*Remington Portable—*  
with standard keyboard. The universal typewriter for individual or personal use.

*Paragon Ribbons and Paragon and Red Seal Carbon Papers—*  
manufactured by us. The standard line of typewriter supplies.

*The Remington Typewriter Line is complete in every field and complete for every purpose*

As a typewriter it is PLUS—unexcelled for good work, and lots of it—and that's important in itself. Furthermore, its hushed and whispering voice brings welcome relief from office clatter, and creates better and more efficient working conditions for everybody concerned.

And the price—only \$7.50 more than our standard correspondence machine. That tells its own story.

You are invited to call at our nearest office to see this new Remington, and note its many remarkable advances—its Improved Self-Starting Carriage, its "Natural Touch", and, above all, its quiet operation. Demonstrations given gladly at any time, or illustrated folder will be mailed on request.

# Remington Typewriter Company

374 BROADWAY, NEW YORK CITY · BRANCHES EVERYWHERE



## Five New Hotels in Fifty Days

WITHIN fifty days, this corporation has financed these five distinctive, modern hotels through the same unique plan that has put through 23 similar projects in the past 21 months.

The city without adequate, distinctive Hotel facilities is automatically imposing an almost insurmountable handicap upon its future growth.

To the resident of any city needing modern Hotel facilities we will send, gladly, a copy of "Modern Hotel Financing," our latest booklet on this interesting subject.



**The Hockenbury System Incorporated**  
Penn-Harris Trust Bldg., Harrisburg, Penna.

## Reprints of Articles

appearing in this magazine may be ordered from The NATION'S BUSINESS, Mills Building, Washington, D. C.

The price is  
\$10.00 for the first 1000 or less;  
5.00 for each additional 1000.

We will give permission, on request, for the reprinting of articles from The NATION'S BUSINESS in house organs, or in other organization periodicals.

## How To Ask Uncle Sam for Figures

By C. C. SMITH

Of the Bureau of the Census

WHEN Willie has to write a thesis in high school, his brother has a debate in college, his mother is to read a paper before the Club of Women Voters, or his father has to discuss before a directors' meeting some problem of the corporation's activities, the first thing that occurs to any of them is to write to the Government for statistics. And writing to the Government is about as difficult as writing to Santa Claus—it is hard to say just where to address him. There are more than a score of important bureaus in Washington engaged in statistical work directly or indirectly. The amazing variety and scope of the questions asked these organizations are suggested by the following inquiries:

How many women leave their jobs each year because of getting married?

What is the annual production of corn cobs available for making pipes?

How much money is spent for movies and chewing gum each year?

How many people in the United States use tooth brushes?

Where can I get a list of bachelors in my state eligible for marriage?

These are just a few of the odd inquiries actually received, but there are many letters from business men to whom a correct answer may mean thousands of dollars.

An automobile manufacturer, for example, desires to analyze his sales territory by counties and asks for statistics of farm crops, manufactures, mining, population, etc.; a manufacturer of electric washing machines is advertising his products and must decide how extensively to use farm papers, so he asks for production data of farm lighting plants, use of electricity on the farm, etc.; a producer of a certain chemical asks for statistics covering a number of years for each of the industries that consume that chemical; a firm making "kiddie-koops" asks for figures showing the number of babies born each year classified according to race and nationality, and also for data concerning the production of such commodities as he is producing.

### How the Census Has Grown

TO demand statistics is only to ask for the facts concerning our problems. The first census, 1790, was taken by seventeen marshals under the direction of President Washington, and the report, prepared by Thomas Jefferson, consisted of a small octavo volume of 56 pages. At that time if a man desired to set up shop, for example, his own personal knowledge extended to his source of materials, prospective customers, and his available credit, and he could carry in a carpet bag all the tools that he required. He felt no need of knowledge of markets. Distribution was an uncoined word in its present business sense.

The Census Bureau employs today a permanent force of about 700 persons, which at the time of the decennial census is enormously expanded. The 1920 census required 372 field supervisors, 87,000 enumerators, 3,000 supervisors' clerks and interpreters, and a bureau staff of almost 5,000 to direct the work and compile the returns. Contrasted with Jefferson's 56-page octavo report, the Census Bureau publishes 11 quarto volumes of nearly 12,000 pages, and the Census Bureau is only one of several engaged in statistical work. The cost of that census (1920)



**COAL  
AND  
COKE**

Coal — coke — that's power — something big. They move things, they're strong — strong like steel — smash through. Coal — smoke — steel — Down at th' bottom of things — ship's holds — openhearth — white metal. Hot — Hell let loose. No — Hell in an oven. Bessemer converters — showers of sparks — flame — And then — coal — coke — back of everything — underneath.

Bringing it out 'a the earth — down dark shafts — black — damp — dead! Then cars, hundreds of cars, and rails — on and on — unending. Glistening rails, twisting all over the map.

Straighten 'em out. *That's* our job. Coal — coke — cars — rails. *Put them all together.* Straighten out the rails. Speed up! That's us. That's International.

**International Fuel & Iron Corporation**  
Philadelphia      Pittsburgh      Cincinnati

# International



Policy No. Db 13673- 18  
Insurance Company of North America  
PHILADELPHIA

In consideration of the premium hereinafter named, and other conditions stipulated in the policy from which this certificate has been detached, hereby insures the property contained in the package or described in the invoice, with which this certificate is mailed, against loss or damage, including theft, pilferage and breakage, as provided in the policy. Loss, if any, payable to Assured named in the above mentioned policy.

## will it arrive safely?

**R**ISKS of transportation—accident, theft, breakage—endanger every Parcel Post shipment you make. Insure against loss from lost shipments.

A coupon from a North America Coupon Book wrapped in your package insures it. The stub entry is your shipping record. Claims settled promptly.

**Insurance Company of  
North America**  
PHILADELPHIA

"The Oldest American Fire and  
Marine Insurance Company"

MAKING SHIPPING SAFE FOR SHIPPERS

Insurance Company of North America, Third & Walnut Sts., Philadelphia. Dept. N-2

Name .....

City .....

State .....

Wants Information on Parcel Post Insurance.

Founded  
1792



Pin this coupon to your letterhead

## Get Your Copy

of

The most important treaty ever negotiated by the United States

The

## Four-Power Treaty

◆ ◆

Everyone should know this treaty

Copies may be had free by writing to the

*John Hancock*  
MUTUAL  
LIFE INSURANCE COMPANY  
OF BOSTON, MASSACHUSETTS

was one and a half times as much as the Government paid for the 1,171,931 square miles of land obtained from France by the Louisiana Purchase, but it was less than a fifth of the cost of the nation's chewing gum while the census was being taken!

Business is no longer a neighborhood affair. Getting the facts is not so easy. To start a shoe factory today is a matter for serious study and consideration. The magnitude of production necessary to compete in the selling field requires the investment of a large amount of capital, which can not usually be obtained without the formation of a corporation.

The materials must be purchased of jobbers at the market prices, which will vary according to the production of hides and skins, not only in America but also in Argentina and other countries. Machinery must be purchased or rented and the outlook in that respect depends upon the expiration of patents, the cost of iron and steel, and various other things. Fuel must be considered. Shall steam or internal-combustion engines be used, or is the development of the electrical industries progressing so rapidly as to make electrical energy the cheapest a few years hence?

Labor must be employed and the labor laws of the home state as they develop may be favorable or very unfavorable compared with those of the states in which the competing companies are located. The market is not the home town, perhaps not even the home state, and it can be reached only by the use of traveling salesmen or advertising, or both. Which journals shall be used for advertising? Shall credit be extended to local dealers or shall a system of retail stores be established?

### Where? and How? to Ask

**H**OW go about getting these facts? There are two things to be considered: First, where to write; and, second, how to ask for the information.

Every bureau of the Government will do its best to forward your letter to the right place, but if your reply is to be worth anything it must be received within a reasonable time, therefore, write a letter to each bureau that compiles data relating to your problem. Probably the most simple and practical method of learning the sources of information is to examine the "Statistical Abstract of the United States." This volume is on file in most public libraries and chambers of commerce. A copy can be purchased for 75 cents from the Superintendent of Public Documents. This is an annual publication of the statistics of all the government bureaus and some unofficial figures also. It is necessarily very much condensed and, by writing directly to the bureaus whose reports are quoted therein, more detailed and complete and perhaps more recent statistics can usually be obtained.

Advise each bureau that you have written to the others and thus save the expense of referring your inquiry needlessly. Many persons write their representative or senator, but this may mean lost time and added expense to the Government, since the congressman must answer the letter and write to the bureau having the information, while the bureau must answer the representative or senator and at the same time write to you, giving the statistics.

Perhaps an example will help. Suppose you are after something on "Coal." Examine the index of the "Statistical Abstract," not only for the subject under discussion but also under such general terms as "Manufac-

tures," "Production," "Prices," "Consumption," etc. The following sources of information will be thus revealed:

Bureau of the Census (capital, employees, salaries, wages, etc., in mining and consumption of coal in various industries).

Bureau of Foreign and Domestic Commerce (imports and exports).

Geological Survey, Interior Department (annual production).

Bureau of Mines, Interior Department (accidents).

Bureau of Labor Statistics (prices).

Interstate Commerce Commission (shipments).

Having determined to which bureaus inquiries should be addressed, the next point is to ask your question in the right way. By all means be perfectly frank and state exactly what you are trying to do. The statistics that you ask for may not be available, but some other information may be provided that will serve your purpose even better.

A man visited the Census Bureau to obtain certain statistics. The question he asked was: "Can you furnish me with figures giving the total value of industrial machinery in each state now in operation?" The bureau could not. He then asked whether the bureau could tell him how much belting was in use in the factories of each state, and the bureau could not do that either, so he was asked the nature of his problem. He represented a concern manufacturing a device to be used in connection with belting for the transmission of power and desired to get statistics upon which to base an advertising and selling campaign. He wanted to learn the relative importance of the states with respect to absorbing his product.

### But He Began Wrong

IF the Census Bureau had furnished the figures he first requested—the total value of machinery in use in each state—he would have been comparing such devices as the linotype more widely in use in the east and having a great value for a very slight belting requirement, with ore-crushing machines demanding enormous belt power used in the west. The figures would have been altogether misleading.

Having learned his problem, the bureau gave statistics concerning the horsepower used in manufacturing, segregated by states and for cities having 10,000 or more population. There is a definite ratio between horsepower and the belting necessary to transmit it, and these figures served his purpose admirably.

Another illustration: A manufacturer of whips was confronted with the problem of whether to continue in his old business or try a new line. The falling off in his business was no greater for 1921 than the general slump in most industries, but he wanted some definite information concerning the opportunity to expand his activities.

He asked for statistics concerning the production of horseshoes as an index to the whip business. The Census Bureau gave him the figures for a period of about twenty years; they showed a decline, but not an alarming one. The bureau gave him the figures for the number of horses in the United States in 1910 and 1920, and, contrary to the prevailing opinion, they showed an increase. But this man had stated his problem completely, in addition to asking for the data he thought would solve it, so the bureau was able to point out to him the danger of using either of these sets of figures as an index to the demand for whips. A horse on a city pavement wears out shoes much faster than on the farm and the intro-

## Our Public Accountants

### Their Necessary Service to Progressive Business

No practice in Business is so necessary to logical and safe progress—the keynote of industry today—as that of the Public Accountants.

Organization, System, Method, Control, irresistible factors which determine the value of success, depend upon their service.

Theirs the power to make figures talk, telling of things as they are. They the guides, and the guards, to progressive action. Thru their efforts, Ignorance, Gamble and Guess are eliminated; Mistakes, Inefficiency and Waste disappear; Profit is assured, and Loss prevented.

The cornerstone of Credit is their *Complete Audit*. Their monthly *Balance Sheets* and *Operating Statements*, and above all, their *Business Budget*, are the safeguards against Over-Production, Over-Expansion and Over-Expenditure.

They have made *Cost Accounting* a science—and absolutely necessary to manufacturing success.

*Inventory* troubles are cleared by their simple *Systems*.

Sales Promotion is blind without their *Scientific Market Analysis*.

*Tax Problems* seem to settle themselves thru their practical knowledge of the law and their understanding of figures.

While their *Business Graphics* put before the executive a moving picture of his business activities.

## ERNST & ERNST

### AUDITS — SYSTEMS TAX SERVICE

NEW YORK	CHICAGO	CLEVELAND	INDIANAPOLIS	NEW ORLEANS
PHILADELPHIA	MINNEAPOLIS	BUFFALO	TOLEDO	DALLAS
BOSTON	ST. PAUL	PITTSBURGH	ATLANTA	FORT WORTH
PROVIDENCE	ST. LOUIS	DETROIT	RICHMOND	HOUSTON
WASHINGTON	KANSAS CITY	CINCINNATI	BALTIMORE	DENVER

### BUSINESS STUDIES

A number of pamphlets are available for distribution by the Chamber of Commerce of the United States. There is given below a list of some of the booklets. One copy of each will be sent free on request. A nominal charge amounting to the cost of printing will be placed on additional copies.

Our World Trade—January to June, 1922.

Free Zones—What They Are and How They Will Benefit American Trade.

International Credits—Referendum No. 1, issued by the International Chamber of Commerce on the application of the Ter Meulen Plan.

Fabricated Production Department—Its service to those engaged in manufacturing and production.

The Railroad Situation—Statement of Secretary of Commerce before the Interstate Commerce Commission.

Trade Association Activities—Correspondence between Secretary of Commerce Hoover and Attorney General Daugherty on Legitimate Activities of Trade Associations.

Overhead Expenses—A Treatise on How to Distribute Them in Good and Bad Times.

Depreciation—A Treatment on Depreciation and Production. Reduction of Merchandising Expense—Methods which Distributors Are Applying to Ease the Process of Readjustment.

Why a Merchant Marine—Reasons why privately owned merchant marine is a national necessity.

Merchant Marine. National Chamber's Position—Report of Chamber's Committee.

Commercial Arbitration—Statement of the field of arbitration and draft of plan.

Schools of Your City III—Health and Physical Education. Perpetual Inventory or Stores Control—How to keep investment in materials and supplies down to the minimum consistent with efficient operation.

Industrial Development—Activities undertaken by Chambers of Commerce.

National Obligations to Veterans—The costs of war borne by the States and the government.

Treaty Ratification—Report of the Committee on Foreign Affairs regarding ratification of the several treaties of the Conference on the Limitation of Armaments.

Department of Commerce and Trade Associations. Merchandise Turnover and Stock Control—Knowing what is taking place, while it is taking place. Study by Domestic Distribution Department.

Analysis of the Senate Tariff Bill—Showing wherein it meets or fails to meet the tariff policy of the Chamber of Commerce of the United States.

Uniform Cost Methods to Aid Production—Address by Arthur Lazarus.

Analysis of the Senate Bonus Bill—Outline of provisions with estimate of cost.

CHAMBER OF COMMERCE OF THE UNITED STATES, WASHINGTON

Winchester Repeat- ing Arms	Maxwell Motors
Gladding Dry Goods	J. L. Hudson Co.
John Hancock Mu- tual Life Ins.	Detroit Electric
Lynn Gas & Elec- tric	Buick Motor
Lever Bros.	Rothschild & Co.
Philadelphia Elec- tric	Klearflax Linen Rug
E. I. Du Pont de Nemours	Commonwealth Edison
Snellenbergs	Merchants Heat and Light
Buffalo Trust	Magnolia Petro- leum
Warner Sugar	Sanger Bros.
International Motor	Goodyear Tire and Rubber
Equitable Trust	Bry-Block Co.
National City Bank	Lowenthal Bros.
Lord & Taylor	Sinclair Refining
Empire Gas & Elec- tric	California Asso- ciated Raisin Growers
Lehn & Fink, Inc.	Hamburgers
Abraham & Straus	General Electric
Cleveland Discount	Frederick & Neil- son
Toledo Scale	Postum Cereal



## "I Had No Idea—"

The concise report of the advantages Elliott-Fisher would bring to his organization was a revelation.

He had no idea that so many firms, both large and small, had found Elliott-Fisher invaluable in their accounting departments.

If desired, Elliott-Fisher will gladly co-operate with

your own staff toward better results and submit, in black and white, recommendations for you to review at your leisure.

This Elliott-Fisher Idea of Service places you under no obligation.

Let the Elliott-Fisher man call and explain. You, too, may find a revelation in his report.

### ELLIOTT-FISHER COMPANY

342 Madison Ave., at 43d St., New York

*Branches in All Large Cities*

### The ELLIOTT-FISHER IDEA

To build a machine that best meets all the requirements of Modern Accounting by furnishing:

#### PROOF OF ACCURACY

At time of writing—no other operation necessary.

#### MAXIMUM PRODUCTION

Writing the greatest number of records at one operation, on a FLAT WRITING SURFACE

#### PERMANENT LEGIBILITY

Clearly written original and carbon copies.

#### COMPLETE DETAILS

Descriptions, as well as figures.

#### CURRENT INFORMATION

Promptly available.

A Quarter Century of study and research has been spent in developing the Universal Accounting Machine—ELLIOTT-FISHER

There is one which fits your business



A list of concerns using Elliott-Fishers reads like a "Who's Who" of American business in every field. The total exceeds 15,000 firms and covers more than 400 different lines of business. Investigate!

# Elliott-Fisher

Accounting and Writing Machines: Flat Writing Surface

duction of stone surface roads throughout the country during recent years tends to increase the use of shoes by farm horses. These and other factors entering into the situation render the horseshoe figures of little value for the purpose.

Whips are not used much except in connection with carriages and wagons. A farmer working in the field seldom carries a purchased whip; a teamster or carriage driver almost always does. The number of carriages and buggies manufactured decreased from 937,409 in 1904 to 215,809 in 1919 and the number of wagons from 643,755 to 356,837. These are significant figures.

It is difficult to conceive of any subject upon which the various branches of the Government cannot shed some light. State your problem fully, address it to the bureau that compiles the information, and you may expect a prompt, courteous, and satisfactory reply. America has become a pioneer in statistical work. If you want to know anything, "Ask Uncle Sam."

## Some Recent Books on Business

**THE FIRST MILLION THE HARDEST**, by A. B. Farquhar. Doubleday, Page & Company, New York, 1922.

An interesting life makes interesting reading. A. B. Farquhar, who is not yet forty years old by Dr. Osler's standards, has dredged deeply into the richly furnished stores of memory to tell the story of "The First Million the Hardest," first printed serially and now in book form, in collaboration with Samuel Crowther. The facts of a long and busy life are presented with unvarnished force and directness. The tale is populous with personalities that have held place and power in the making of America. As a young man Mr. Farquhar measured success in money. With all the assurance of youth, he sought the advice of William B. Astor, James Gordon Bennett, A. T. Stewart, John A. Stevens, George S. Coe, and other rich men. They found him earnest and determined, and counseled him on his problem "How to make a million dollars." They were elemental, he concluded; they did not work through others as men do today. Referring to their individualism, he says:

"And that, I think, is about the most striking contrast between the men of yesterday and those of today—and on the mere matter of making money, Mr. Carnegie made more than all of the men I have mentioned put together. They were individualists—not managers."

Mr. Farquhar's mechanical bent turned him toward the agricultural implement industry. He began his apprenticeship at York, Pa., and in due time became foreman, partner, and finally head of the business. The Civil War, the reconstruction period, and the panic of 1873 were severe trials. Eventually he reached and passed the goal he had set for himself in his young manhood. There are diverting glimpses of the family home in Maryland, of his relatives, and of his friends. He walked and talked with Lincoln. He had a warm affection for the South, and he is able to put that affection on paper. Throughout the years of his fortune building, he "never let his love for a dollar interfere with his love for a book," and he asked questions because he believed that was "the most useful way that a young man can put in his time."

We have Mr. Farquhar's word that "the world grows in interest and life is happier with gathering years."

**THE LAW OF CITY PLANNING AND ZONING**, by Frank Backus Williams. Published by The Macmillan Company, New York, 1922. Pp. 738. Price, \$5.00.

City planning and zoning have passed through the stages of aspirations and theory



## New Orleans and Mardi-Gras

—the former as alluring as ever, with its Old World atmosphere; the latter more brilliant and spectacular than in any previous season. REX, the Lord of Misrule, will hold sway from February 8 to February 13. Feast your eyes on the gorgeous pageants and masks of the Mystic Crews of MOMUS, COMUS and PROTEUS—the famous street parades of wonderful floats—the magnificent play of colors.

A ten-day stopover at New Orleans is allowed on all tickets

## Via the Sunset Route to California

Every mile a scene worth while

### SUNSET LIMITED

New Orleans	San Antonio	El Paso	Tucson
San Diego	Los Angeles	San Francisco	

Operated daily over a mild, sunny route all the way. Standard Pullman Sleeping, Observation and Dining Cars from New Orleans; Pullman Tourist Sleeping Car from Washington, D. C., to San Francisco.

Tri-weekly Sleeping Car between New Orleans and Globe, Arizona, for the 120-Mile Detour by Automobile over the APACHE TRAIL HIGHWAY; also between New Orleans and San Diego via the San Diego & Arizona Railway through the CARRISO GORGE.

For information and literature address

### SOUTHERN PACIFIC LINES

New York	New Orleans	Houston	Tucson
165 Broadway	Pan-American Bank Bldg.	Southern Pacific Bldg.	Score Bldg.
	San Francisco, Southern Pacific Bldg.		



## Bureau of Canadian Information

The Canadian Pacific Railway through its Bureau of Canadian Information, will furnish you with the latest reliable information on every phase of industrial and agricultural development in Canada. In the Reference Libraries maintained at Chicago, New York and Montreal are complete data on natural resources, climate, labor, transportation, business openings, etc., in Canada. Additional data is constantly being added.

## Development Branch

If you are considering the establishment of your industry in Canada, either to develop Canadian business or export trade, you are invited to consult this Branch. An expert staff is maintained to acquire and investigate information relative to Canadian industrial raw materials. Information as to such raw materials as well as upon any practical problem affecting the establishment of your industry, including markets, competition, labor costs, power, fuel, etc., is available.

No charge or obligation attached to the above service. Business men and organizations are invited to make use of it.

## CANADIAN PACIFIC RAILWAY

### DEPARTMENT OF COLONIZATION AND DEVELOPMENT

Windsor Station  
Montreal, Can.

C. P. R. Building  
Madison Ave. at 44th St.  
New York

165 E. Ontario St.  
Chicago



THE "Center of Population" means one thing to the teacher of geography, another to the merchant, but to the manufacturer it means more than to all others combined. The number of his potential customers is based on population. It is people he is trying to reach and serve. The East was settled first, and the first factories were built there. As the country grew, the Middle West and then the Far West were settled. The center of population has been pushed steadily westward.

The center of population in 1800 was a few miles west of New York. By 1860 it had reached the Alleghenies. It has since moved across Ohio and Indiana. Today it marks a spot 150 miles east of St. Louis. It is moving slowly now, and scientists tell us that it will never go further than 50 miles beyond St. Louis, because the two oceans, the gulf, the desert and the cold North set their own limits.

#### Reaching the Markets

As their markets grew westward with the population, eastern manufacturers endeavored to serve an increasingly distant patronage. In order to reach their western customers, Atlantic seaboard industries paid more and more transportation charges and faced growing western competition.

The day is past when the manufacturer can shrug his shoulders at a high freight rate and say, "Pass it on to the customer." Eastern industries cannot indefinitely overcome the disadvantage of high freight rates and successfully compete with plants more favorably located.

What is the logical answer? Either re-establish your operations at St. Louis or build a factory branch in St. Louis to handle the ever increasing westward movement of business. St. Louis manufacturers ship from the center—not the rim.

St. Louis is a good city to live in, work in and play in.

Send for one or both of our free illustrated booklets, "Industrial St. Louis," or "St. Louis—The Home City."

**ST. LOUIS CHAMBER OF COMMERCE**

St. Louis, U.S.A.

and entered that of actual practice. Consequently they are of interest to courts of law, or rather their proponents have become very keenly interested in the courts. From one end of the country to the other city councils, special commissions, chambers of commerce, and other citizens' agencies are drafting or enacting or enforcing legislation designed to regulate the future development of their cities. What are the courts going to say about their efforts?

Mr. Williams tells them so far as can be told. But he does far more than that; he gives in clear, non-technical language the reasons for and the purposes of city planning and zoning, traces so much of their history as is necessary to an understanding of their development and then shows by example and citation what can and what probably can not be done by these related methods of replacing chaos with order.

The book is of value to both lawyer and layman, for while its author has been most careful to cite authorities on every point and even to include the text of important laws and legal decisions so that the reader may have the full case before him, his style is clear, concise and readable. Use of "The Law of City Planning and Zoning" by those who are drafting legislation will prevent costly litigation and, perhaps, disheartening court decisions. The volume contains a bibliography, tables of statutes, index of cases, and a very complete index (pp. 659-738) to the book itself.

FOREIGN COMMERCIAL CREDITS, by George W. Edwards. McGraw-Hill Book Company, New York, 1922.

TECHNICAL PROCEDURE IN EXPORTING AND IMPORTING, by Morris S. Rosenthal. McGraw-Hill Book Company, New York, 1922.

The McGraw-Hill Book Company, which is devoting very much attention to foreign trade subjects, has added two more volumes on foreign trade topics. Both of these fall in the strictly technical field of foreign trade, and both deal particularly with the documents of foreign trade.

Dr. Edwards is well known in financial circles and in foreign trade circles where the commercial letter of credit has been used, especially because of his studies conducted as Research Assistant of the Federal Reserve Board, some of the results of which were published in the "Federal Reserve Bulletin." This new volume is a welcomed addition to the meager literature on the subject of foreign commercial credits. Wilbert Ward, of the National City Bank, produced a good book on this subject a few months earlier, but Edwards' present book is more than "another" book in the same field. Edwards covers some ground that Ward did not cover, and his "Foreign Commercial Credits" is worth reading by anyone interested in the development of the commercial credit abroad and in the United States. Incidentally, he deals with bills of lading, marine insurance policies, commercial invoices, and some of the minor documents that are necessary in connection with documentary drafts.

Mr. Rosenthal's new book on "Technical Procedure in Exporting and Importing" is an elementary book on the technique of foreign trade. It deals with the documents required by governments, the banking documents, the shipping documents, the marine insurance documents, protection against credit losses, packing for export, marking export shipments, and other points in this field. Most of this book deals with export trade, primarily, although there are chapters covering the tariff system and the customs practice of the United States.

CAPITAL AND INTEREST, by Eugen V. Bohm-Bawerk. Translated by William Smart. Brentano's, New York, 1922.

A new edition of Mr. Smart's translation of the familiar studies on the history of capital.



## Seeing Is Believing

From far off South Dakota a merchant writes and says:

"We think *Sperry & Hutchinson* Green Stamps are better than a five per cent discount. Our customers can see and feel the stamps, and there is a great fascination in seeing the books fill."

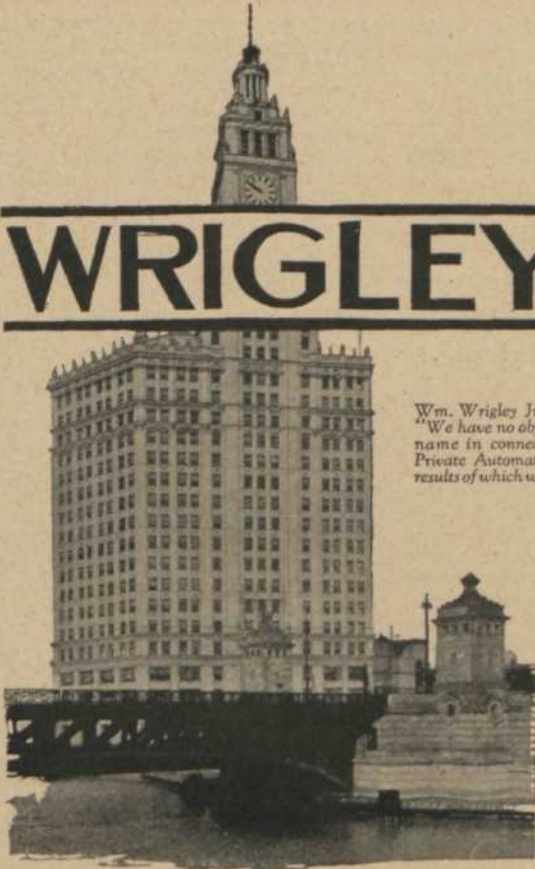
Of course, "seeing is believing," but today seeing is also selling.

A tangible discount in the form of *Sperry & Hutchinson* Green Stamps possesses more business building power than an intangible something given in a round-about way.

A tangible discount brings customers back, and bringing 'em back is quite as important as bringing 'em in.

When customers see what they are getting in the way of **QUALITY, PRICE** and a **DISCOUNT**, merchants see more of them and more of their trade.

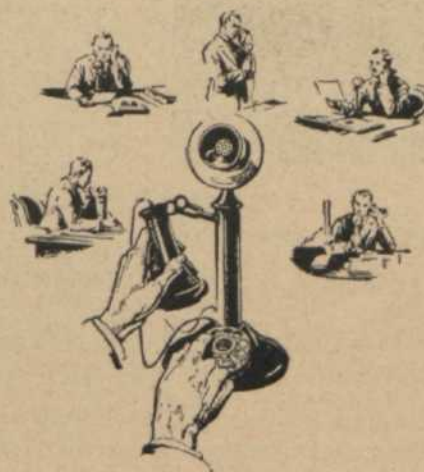
**THE SPERRY & HUTCHINSON CO.**  
114 FIFTH AVENUE NEW YORK



# North WRIGLEY Saves with P.A.X.

PRIVATE AUTOMATIC EXCHANGE

Wm. Wrigley Jr. Co., Chicago, writes:  
"We have no objection to your using our  
name in connection with the North  
Private Automatic Exchange, with the  
results of which we are very well satisfied."



**N**O time lost waiting for the man you want in the Wrigley office. NORTH P. A. X. finds the man you want—puts him in *instant communication*.

Anyone in the Wrigley office can talk *instantly* to any department or person without leaving his desk. The dial-equipped NORTH P. A. X. phone saves time by saving steps.

Any office, large or small, can save with NORTH P. A. X. Let us show you how.

## Serves More Ways than One

In addition to instant interior communication NORTH P. A. X. gives auxiliary service, such as *fire alarms, code call systems, watchmen's service, executive right-of-way lines, etc.* Only one piece of equipment—the dial-equipped telephone—is needed to give all services. Everything automatic—ready night and day.

North  
P.A.X.  
PRIVATE AUTOMATIC EXCHANGE

You'll find our new bulletin full of interesting illustrations of the variety of NORTH P. A. X. uses. A copy is yours for the asking.

NORTH ELECTRIC  
MANUFACTURING CO.  
GALION, OHIO



Manufacturers of NORTH Private Automatic Telephone Exchanges and NORTH Machine Switching Systems for Commercial Telephone Exchanges.

# Nation's Business Observatory



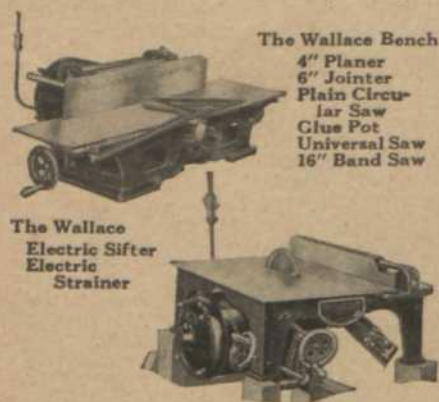
## Comparative Costs

SINCE selling prices and costs are so closely linked and competitive business so largely depends on price—executives should carefully consider the adaptability of their factory equipment to the work at hand.

A great many firms, large and small, in a diverse line of industries, have fitted their shops with Wallace Bench Machines because of the resulting increase in production and the greatly diminished costs. Wallace Portable Electric Bench Machines save hand work and wasted steps by providing the means of performing the majority of operations at the bench with machines of the proper size.

Wallace Bench Machines are accurate, speedy and operate from electric light circuit. They are light in weight and can be easily taken to the job or used at the bench.

The Wallace Line includes the following:



Send for bulletins and prices

**J. D. Wallace & Co.**

1408 W. Jackson Blvd., Chicago, Ill.

Offices and stocks in all principal cities

HISTORY of 1922 and prophecy for 1923 fill the pages of the trade magazines. With the history we have little concern at present, but some things that are prophesied, some guesses as to the future of some industries may be interesting. For the most part they are cheerful, but through them all, even the most cheerful, runs a vein of caution.

The lessons of 1920 and 1921 have not yet been forgotten.

Beginning with steel, which we are inclined to regard as "basic," the *Iron Age* sees in "nearly all the major lines of steel consumption a very favorable outlook at the present time." To be more specific:

Orders for freight cars and locomotives have been heavy in the past year, but a large portion of the business placed is still to be filled, while there is much more business now in sight. Thus a heavy flow of steel to car and locomotive shops is assured for months to come. Rails have been bought freely for delivery in the first half of next year. In other classes of railroad demand there has been little business, but there are prospects of terminal work, such as the Pennsylvania's large project for Pittsburgh.

Demand from the farmer has turned good recently. Makers of fence are much in arrears in filling their orders. Agricultural implement works have been increasing their operating schedules and appear to have good prospects. The farmer is not so well off as he might be, but his buying power has increased greatly as a result of this year's crops.

While on account of the high costs in dwelling house and garage construction one may look at that activity askance, the actual fact is that there has been a great boom. It may not be so much of a boom in 1923, but its end is not in sight. Mills are still crowded to make deliveries of the two barometers of house building, butt weld merchant pipe and nails.

The automobile makers are planning for heavy production in the first quarter or half of the new year, and their expectations are entitled to respect, for their operations in the past year have been at least as heavy as they predicted.

The consumption of steel in the oil fields, particularly in tubular goods, forms a larger proportion of the total steel demand than is sometimes realized. From the viewpoint of prices and stocks of oil, the steel prospect in this direction is not good, but the practical fact is to be considered that the oil country demand has proved heavier in the past few months than was being predicted at the middle of the year.

The lines of consumption that present a less favorable aspect are fewer. Skeleton steel construction is not particularly active and the export trade is poor. Plainly, however, the favorable features of the steel tonnage outlook greatly outweigh the unfavorable features. One can say at least that the steel tonnage of the next six months will be large, not small.

## One Danger for Coal

ANOTHER "basic" industry is less cheerful in its outlook. Coal seems to have all its troubles, or most of them, still before it. As *Coal Age* says: "One cloud hangs over the country. It is the possibility of a strike of the coal miners next April."

The public and the Coal Commission can do nothing, asserts the *Age*. It is all up to the union operators and miners:

Whether or not there will be a strike next April turns on what the parties involved, the United Mine Workers on the one part and the several operators' groups on the other, do between now and that fateful day. In October, in November and again in December, the representatives of the union and the operators held meetings looking toward a solution of their im-

mediate difficulty—a basis for negotiation. They begin the new year with yet more conferences on the same subject. Looking for the moment beyond the, as yet unsolved, question of a basis of negotiation, inquire into a few of the facts that bear on the possibilities of the negotiations themselves.

Wages stand at the top of that list. Last spring, if ever, economic conditions warranted the demand of the operators that the union take a reduction in wages. The union refused even to give the matter the consideration it warranted; struck, and won. The tide has turned. Wages in other, non-union, industries that reached bottom a year ago are mounting although they have not reached the post-war level still maintained by the United Mine Workers. It will be much more difficult for the coal operators in 1923 than in 1922 to argue for a reduction. Having bridged the chasm of 1922 the union is in better position for the next contract. In fact, so far as wages are concerned, the union has already made known its intention. A contract for two years at the present wage scale will be demanded from the bituminous-coal operators, if they can ever be lined up to listen to those demands. The union miner is quite serious about his demand for a six-hour day and a five-day week, but so is the operator in his demand for the abolition of the check-off. Neither stands much chance this year. So it most likely will be wages and duration of contract that will be negotiated, or struck for, in 1923.

## How Get Together?

BEFORE they can discuss wages, etc., there must be a meeting. Who will attend that meeting? That is the question before the house now. The operators wish to appear in groups representing each district separately, of which there are fifteen. The miners are not willing, contending that to throw negotiations back to the field is but the first step toward taking it still further back—that is, to each mine—and thus destroying the power of the national union of mine workers.

Apparently the miners will treat on any other basis—a national body—a congregation of large groups or the old Central Competitive Field group. On no one of these have the operators agreed. Essentially, then, the present status of the case is that the union seeks to preserve and perpetuate its autonomy as a national wage fixer and the operators seek purely local autonomy and the right and opportunity to correct local inequalities.

It is this question that must be settled before peace can be assured the bituminous-coal industry. The conference for its solution calls for no ascertainties of fact—such as profits of operators or earnings of miners, now being investigated by the U. S. Coal Commission.

What the situation does demand is an earnest will to negotiate.

"Optimism tempered by conservatism," says *Hide and Leather* of the state of mind of the industry which it represents. It specifies as follows:

The general view of the future is optimism, tempered by conservatism. In fact, the business outlook as a whole for 1923 is regarded as being fair to good, rather than having any tendency to booming. Shoe and leather manufacturers are looking forward to a good year. Labor troubles appear settled in the shoe factories. Plants producing staple goods are said to have orders enough to keep them busy for two or three months.

It is generally understood that shoe jobbers and retailers are carrying only moderate stocks, part of which are style goods, which are slow sale. The big mail-order houses are reporting larger sales, which indicate that farmers and other buyers are becoming more willing to replenish needed supplies.

Leather manufacturers feel confident that

1923 will be fairly prosperous for them. Much leather is being delivered on back contracts, while here and there some leathers, as is usual toward the end of the year, are moving at concessions. Tanners are having more confidence in demanding prices that show some profit to them, in spite of much leather that is floating around and offered on private terms.

And, fortunately, the Department of Commerce is able to state that prices to the farmer have increased about 17 per cent during the year. The continuing rise in grain and cotton, has lately brought wheat 30 per cent above the year's low price, corn 46 per cent above the 1922 minimum, and cotton 63 per cent above it, so that these staple products of American agriculture are selling 20 to 60 per cent above the year-end prices of 1921.

It is interesting to note how the effort to forecast in any trade works back to the farmer, and if his state of mind is good, then most other industries are prepared to go forward. Here is one statement of the point of view quoted from *The Prairie Farmer*:

The New Year finds agriculture on the road to recovery from the depression of the past two years. Corn prices are 59 per cent higher than a year ago, hog prices are 21 per cent higher, wheat prices 17 per cent higher, oats 23 per cent higher and fat steers 51 per cent higher.

There is a strong demand for all the food that has been produced. Congress is sure to pass a farm credit law that will give the farmer credit on better terms and probably at lower rates. There is a strong likelihood of some sort of government financing of exports of farm crops, which would cause a further immediate and substantial advance in prices.

It looks as if 1923 would be a good year for farmers. Certainly it will be for the man who works hard, keeps his cost of production as low as possible, and maintains a cheerful disposition.

## Making Stock Dividends

### Plain to the Workman

THE DAILY and trade press have been full of comment on the stock dividend. There is one phase of the situation which has not attracted so much attention. That is the state of mind of the workman in the plant whose owners have declared such a dividend. That state of mind and how it may be overcome are thus discussed in the *Iron Age*:

The flood of announcements of stock dividends is creating an impression upon wage earners which needs correcting. To them, recent experience has proved, a dividend is a dividend, regardless of whether it be in cash or in stock, and a dividend of hundreds per cent spells colossal earnings, which they think of as current earnings. They talk of "cutting of melons," and grow restless in the idea that they are not sharing in the cutting. In some cases more or less serious disaffection has resulted among employees of concerns declaring the dividends. They must be made to understand, if possible, that a stock dividend, under conditions as they are now being declared, is a very different matter indeed from a cash dividend.

In one case a campaign of education among the workers preceded the announcement of a stock dividend of some hundreds per cent. It was explained that the company had not increased its capital stock for years, in spite of the great growth of the plant and the volume of business done, and that the money with which business was done was represented on the books as surplus instead of capital stock as in the case of other similar large and thriving industries. The owner of one share of the old stock was no richer because he had received two additional shares, for the three combined stood for no greater share of the business than did the one share. The condition as outlined applies to most concerns which are

APPRAISALS . . . REPORTS . . . INVESTIGATIONS  
INDUSTRIALS . . . PUBLIC UTILITIES . . . NATURAL RESOURCES



FOR twenty-eight years American Appraisals have been furnishing facts to American Industry—facts which have been proved by courts, tax commissions, regulatory bodies, insurance companies, bankers, buyers and sellers.

American Appraisals are made by an organization of appraisal engineers who are equipped to value any property, any industry, any department of industry—and are checked and verified by means of the greatest library of statistical cost data in the world.

## The American Appraisal Company

Chicago Office: 38 South Dearborn Street; Phone, Central 6942

Atlanta  
Baltimore  
Boston  
Buffalo  
Chicago  
Cincinnati

Cleveland  
Detroit  
Indianapolis  
Los Angeles  
Milwaukee  
Minneapolis



New Orleans  
New York  
Philadelphia  
Pittsburgh  
San Francisco  
St. Louis  
Seattle  
Syracuse  
Tulsa  
Washington

The Canadian Appraisal Company, Ltd., Montreal, Toronto

Copyright, 1923, The American Appraisal Company

Do you want a Cross-Reference INDEX  
of the articles which appeared in  
The NATION'S BUSINESS  
during the entire year of 1922?

You may have a copy free if you will write for it.

The NATION'S BUSINESS  
WASHINGTON, D. C.



*Aerial view of U. S. Army Supply Base, Port Newark, N. J.*

## Port Newark Base for Sale

When the cry "Men—more men!" was coming to America from the battlefields in France—

When every resource of the nation was being strained to hurry forward men and munitions in answer to that call—

When industry, under the whiplash of war, was rushing munitions to the Atlantic seaboard in daily trainloads—

Suddenly there developed a sinister shortage of ocean terminals.

Where to handle this avalanche of war materials—where to load them into ships for delivery in France—was the problem confronting the Government.

Port Newark was one of the answers to that riddle.

That was but five short years ago, and the same Port Newark base that met the Government's emergency is awaiting your purchase—awaiting the word that will set it to meeting *your* problem.

All of its outstanding features, such as SITUATION, FACILITIES, IMPROVEMENTS and EQUIPMENT are enumerated in a profusely illustrated Booklet, which also specifies the Terms of Sale and gives detailed information. Booklet sent free on request.

Sealed Proposals will be opened on March 1st, in the office of the Quartermaster General, Room 2024 Munitions Bldg., Washington, D. C. The Booklet and Proposal Blanks may be obtained at this office or either of the two following addresses: Quartermaster Supply Officer, 1st Ave. and 59th St., Brooklyn, N. Y.; Quartermaster on the premises at Newark, N. J.

The Government reserves the right to reject any or all bids.

**Write for  
Descriptive  
Booklet  
Today!**



# WAR DEPARTMENT

shifting their surplus to their capital accounts. Those companies whose employees hold their stock find them useful agents in explaining the refinancing.

Of all industries that of producing and refining oil has perhaps come under the most criticism because of the declaration of stock dividends. A concise justification of them is thus given by *Oil, Paint and Drug Reporter*, which refers with praise to the speeches of A. C. Bedford and others at the recent meeting of the Petroleum Institute, and then goes on to say:

If an individual can earn, say, a thousand dollars clear in a year of commercial endeavor and invest that profit in additional stock, in advertising, or in equipment, would any person contend that the thousand dollars was a taxable income? It has become intangible as money and exists only as an additional asset represented by the stock, or equipment, or increased sales to which it was applied.

What is the difference when a corporation returns a part of its profits to its business? That, too, becomes but an additional asset, represented by one or another or more of the same tangible items which stood for the investment of the individual. But such items add to the substantiality of the corporation only as a corporation. What of the stockholder? Must he not have a token of that increased substantiality as intimately his as is the stock or equipment of the man who is individually engaged in trade? The stock dividend is that token.

The petroleum industry is not far from being the most stably financed in the world. Its expansion has been greater in recent years than that of any other, and that growth has been sound. The industry can do nothing better than follow the advice given by several speakers at the recent A. P. I. meeting and tell the public the whole truth about itself. Woodpeckers can, in time, do damage even to sound trees.

### Can They Find the Facts in This Mass of Details?

THE COAL industry as reflected in its periodicals seems to be willing to lend all possible aid to the United States Coal Commission in its fact-finding task.

There is perhaps in one or two quarters a disposition to feel that the Commission is hunting almost too much detail. *Coal Age* thus describes the task set before the coal producers:

The schedules that have been adopted are rather formidable. On the cost report form there is provision for a maximum of 146 numbered items calling for 137 separate replies. Producers having less than 120,000 tons annual output are permitted to subtract 40 items from the list, leaving 97 items to answer. The longer schedule calls for a division of labor costs between 15 items, supply costs between 16 items and miscellaneous income spread over 9 items not required on the shorter form.

Just why a commission inquiring into the vexed coal question displays such interest in the allocation of supplies expense among 16 classifications, including everything from mining through drainage, ventilation and railroad-car loading to engineering is not clear. Perhaps the inspiration was afforded by a diagram prepared and circulated by the operators some time ago showing to the number of several hundred the variety of items that go to make up the costs of producing a ton of coal.

The cost statement has 110 numbered lines, of which but 29 call for figures taken from the books; 15 are totals and subtotals, 15 are blanks, 40 are the details noted above called for on the long but not on the short form and 11 are "yes or no" questions. For the majority of producers there are but 10 questions

### Representative Public Utility Companies

for which bond or note issues have  
been underwritten by

**Halsey, Stuart & Co.**

either alone or jointly  
with associates

American Light & Traction Company  
American Public Service Company  
Arkansas Water Company  
Ashland Light, Power & Street Railway Company  
Binghamton Light, Heat & Power Company  
Central Illinois Power Company  
Central Illinois Public Service Company  
Central Indiana Power Company  
Central Power Company (Neb.)  
Chicago, North Shore & Milwaukee Railroad  
Cohoes Power & Light Corporation  
Commonwealth Edison Company  
Denver Gas & Electric Light Company  
Detroit City Gas Company  
E. St. Louis & Interurban & Water Company  
Eastern Texas Electric Company  
Empire District Electric Company  
Houston Lighting & Power Company  
Illinois Northern Utilities Company  
Ironwood & Bessemer Railway & Light Company  
Kansas City Power & Light Company  
Kentucky Utilities Company  
Laclede Gas Light Company (St. Louis)  
Metropolitan Edison Company (Pennsylvania)  
Middle States Water Works Company  
Middle West Utilities Company  
Mobile Gas Company  
New Jersey Power & Light Company  
Northern Indiana Gas & Electric Company  
Northwestern Elevated Railroad (Chicago)  
Ohio and Northern Gas Company  
Ohio Public Service Company  
Pacific Gas & Electric Company  
Pennsylvania Power & Light Company  
Peoria Railway Company  
Portland Railway, Light & Power Company  
Public Service Company of Northern Illinois  
San Antonio Public Service Company  
San Joaquin Light & Power Corporation  
Seattle Lighting Company  
Sioux City Gas and Electric Company  
South Side Elevated Railroad Company (Chgo.)  
Southwestern Bell Telephone Company  
Southwestern Power & Light Company  
Springfield Railway Company  
St. Paul Gas Light Company  
The Tri-City Railway & Light Company  
United Light & Railways Company  
Vermont Hydro-Electric Corporation  
Western United Gas & Electric Company  
West Penn Power Company  
Wisconsin-Minnesota Light & Power Company  
Wisconsin Power, Light & Heat Company  
Wisconsin Public Service Corporation  
Wisconsin Railway, Light & Power Company  
Wisconsin River Power Company



## A Nation-Wide List of Public Utility Bonds

THE above map shows how extensively Halsey, Stuart & Co. have been identified with the underwriting and distributing of bonds of important, well managed, public utility companies throughout the country.

In times of prosperity or depression, there is always a dependable market for transportation, gas, light, power and water—essential services which public utilities sell both to cities and rural communities, usually without competition and on practically a cash basis. Earnings are steady and assured by the very necessity of the service rendered.

### 10 TESTS of a Sound Public Utility Bond

**HALSEY, STUART & CO.**

Please send me your current list of Public Utility Bond offerings and pamphlet, "Ten Tests of a Sound Public Utility Bond" NM-8

Name .....

Street .....

City .....

## HALSEY, STUART & CO.

INCORPORATED

CHICAGO  
209 So. La Salle St.  
DETROIT  
Ford Bldg.

NEW YORK  
14 Wall St.  
ST. LOUIS  
Security Bldg.

BOSTON  
82 Devonshire St.  
MILWAUKEE  
1st Wis. Nat. Bk. Bldg.

PHILADELPHIA  
Land Title Bldg.  
MINNEAPOLIS  
Metropolitan Bk. Bldg.

## Don't hobble shop hauling with makeshift platforms

You wouldn't expect maximum production from a fine machine shop lighted with dingy kerosene lamps. Neither can you count on getting the utmost economies possible with lift trucks if you use old-style nailed platforms.

Bring your trucking equipment up to date with Stuebing Steel-Bound Load Platforms. These reinforced platforms are built to give long, trouble-free service under the same strenuous loading and hauling conditions the Stuebing Lift Truck has mastered. They are produced by the world's largest manufacturers of lift trucks.

Stuebing Steel-Bound Platforms won't split, sag or wobble because the oak top is rigidly bound to the wide-faced steel legs with powerful steel angles. They won't wear down. Even in small batteries they save hundreds of dollars annually in repairs and replacements.

Stuebing Steel-Bound Platforms come in any size desired and will handle any type of product. You will be surprised to learn that, due to large production, they cost only a trifle more than the less durable nailed platforms. Write today for a descriptive folder and latest prices on Stuebing Steel-Bound Platforms.

### The Stuebing Truck Company

Cincinnati, Ohio

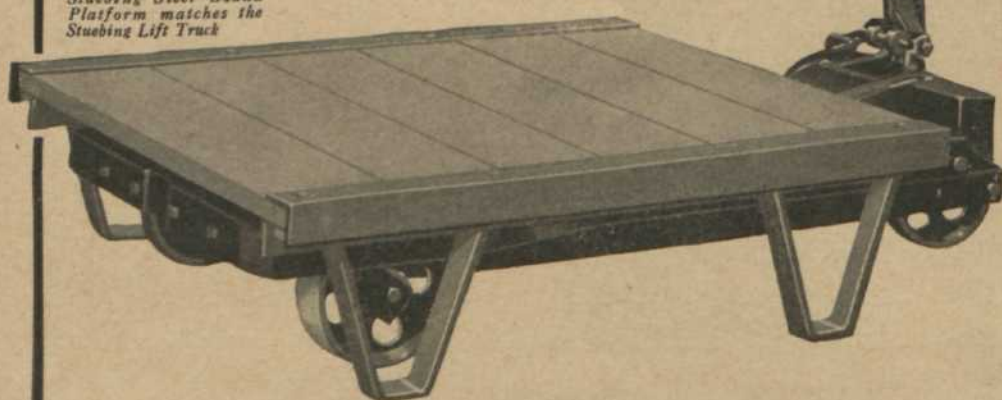
Montreal, Que.



In its strength of build and its service adaptability the Stuebing Steel-Bound Platform matches the Stuebing Lift Truck

# Stuebing

LIFT TRUCK SYSTEMS



## Positions for Salesmen!

OUR Circulation Manager says that his *best* applicants for positions have come through advertisements in *The NATION'S BUSINESS*.

We are seeking a few high-type men to sell this magazine to business executives. Our present force numbers 58 men. It will be enlarged, as suitable men are found, to 75 in number.

Our salesmen earn from \$170 to \$600 per month. We furnish the training and the prospects! If you think you can sell this magazine, or can learn to do so, please write the full details about your experience and territory preferences, and whether or not you wish to travel, to *The NATION'S BUSINESS*, U. S. Chamber of Commerce, Washington, D. C.

in the remaining 35 numbered lines of the schedule that require figures taken from the books. Any producer who keeps books can easily answer the questions on the short form, and the 40 additional details of the long form are of little moment.

The schedule covering earnings of mine labor is cumbersome but complete. It provided for a year's record by pay periods of the earnings and days or hours worked by each employee by name, classified by occupation. There is but one way to ascertain what a man earns in a year and that is to trace his record throughout the year.

### If Rural Credits Fail To Satisfy, What Comes Next?

RURAL CREDITS have been receiving Congressional attention along with the ship subsidy, but will the farmer be content with having the way made clear for him to borrow money? *Farm, Stock and Home* of Minnesota would have the Government go much further. It calls for "Government stabilization of prices by purchasing the surplus." Its need, at least temporarily, is thus explained:

Our lawmakers at Washington are very busy on rural credit legislation. We hope it will go through, as it will undoubtedly enable some farmers to hang on through the brutal process of elimination of those who must let go, and production drops to a point that will put prices up to where profits can be made. As things stand today, loaning vast sums to farmers to lose, through no fault of their own, will eventually cost the Government far more than a policy of price stabilization that will enable farmers to pay their debts and stay on their farms. The money farmers lose must eventually come out of everybody. Farm Loan Bonds are liens against the Government, and if not paid out of the sale of foreclosed farms that can only be sold at low values because of the unprofitableness of farming, the taxpayers will have to pay. Rural credit, like any other, is valuable to tide over temporary depression, but until farming can get in line with economic law, credit or price stabilization can be nothing more than temporary makeshifts. We do not advocate governmental price stabilization as a permanent policy.

Farmers must get together and adjust production to demand, but that will be a slow process that can best be done under the cover of governmental stabilization, which must be fully understood to be a temporary measure.

### Do Men Prefer British Materials to American?

THE WOOLEN industry in this country is mildly concerned over the influx of British material for men's overcoats. *Textile World* says that at least thirty mills in England, Scotland and Ireland have had men here taking orders for next fall's business and that they have gone back with larger orders than were ever placed before.

The reasons for this invasion seem to be, in part at least, psychological. As *Textile World* explains:

Many manufacturing clothiers have been placing orders for coatings of British make during the last few weeks, although they state frankly that they would prefer to see the business going to domestic mills. The reasons for their buying of foreign fabrics appear to be the following: Desire to meet competition of foreign-made overcoats; realization that there is a good market to absorb the garments made from the goods, and the fact that domestic mills are not offering overcoatings of the same sort.

A prominent clothier who has bought a long line of British overcoatings for the new sea-

## They Advanced Millions When Others Were Calling Loans

**W**HEN the financial storm broke in the fall of 1920, an American concern, making a world-famous line of dairy equipment, was doing a flourishing business. Suddenly, farmers stopped buying; dealers cancelled orders; and stocks accumulated in the warehouses. Something must be done—and done at once.

The situation was frankly discussed with their bankers. These experienced financial men had the vision to see and the courage to act. They saw at once the wisdom of reinforcing the business with additional capital. Unhesitatingly, they advanced several million dollars at a time when loans were being called on every hand. Fortified with ample resources, the Company made liberal terms to its dealers, maintained its sales force and contracted for the usual line of advertising.

The year 1921 was a poor one, measured in sales volume. Yet not a salesman was laid off; not a line of advertising was cancelled. Farmers were not buying, but they certainly were **reading and thinking**.

The brand name was being indelibly stamped into their minds.

With the encouragement of their bankers, the executives of this Company determined to go steadily ahead. In spite of discouraging business conditions, the advertising for 1922 was **increased**. Soon, the seed of publicity, sown during months of depression, ripened into a profitable harvest. Farmers instinctively turned to the brand which they had seen persistently advertised. Sales increased steadily; the year 1922 showed a satisfactory profit.

The prospects for 1923 are bright indeed. The brand dominates its market. The world-wide sales organization is intact; once more the advertising will be increased.

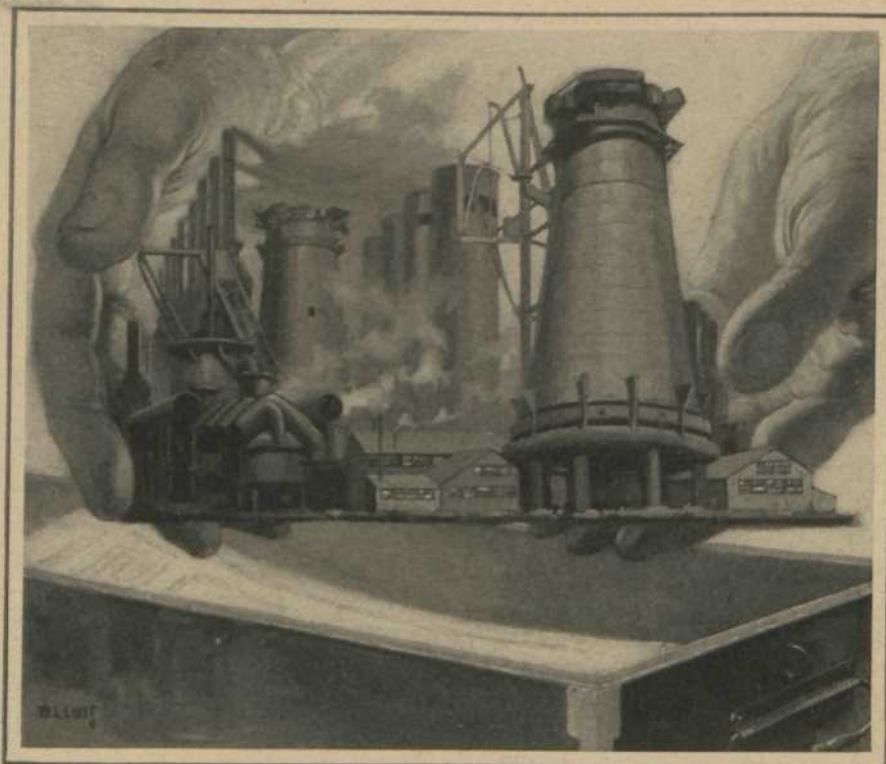
The logic of events has justified the bankers who loaned millions when others were calling loans.

THE COUNTRY GENTLEMAN with its more than 850,000 subscribers, blankets the entire country. It is read alike by leading farmers and progressive dealers. Advertising, placed in THE COUNTRY GENTLEMAN, helps to secure distribution and creates consumer demand.

## *The* COUNTRY GENTLEMAN

The Curtis Publishing Company, Independence Square, Philadelphia, Pennsylvania

*The Country Gentleman    The Saturday Evening Post    The Ladies' Home Journal*



## Invest in Bonds

—they are backed by actual values

WHEN a great industry with established earning power borrows money by issuing bonds, it pledges actual properties of known value as security for the amount borrowed.

Buyers of such bonds participate in a well secured loan for

a definite number of years at a definitely stated rate of interest.

The security back of every bond offered by The National City Company has been carefully studied and analyzed.

*The latest list of such issues will be sent on request.*



### The National City Company

National City Bank Building, New York

Offices in more than 50 leading cities throughout the World

BONDS SHORT TERM NOTES ACCEPTANCES

## "Recent Government AIDS to Business"

*Our New Service to You*

EACH month, from this issue on, you will find in The NATION'S BUSINESS, a department under the above heading which gives brief descriptions of many of the available reports, bulletins, circulars, and other informational

services which the Government provides for your use.

If you don't find what you think should be found under the above heading, tell us about it; if you do, tell us also!

The NATION'S BUSINESS  
Washington, D. C.

son states that the salability of the garments depends not so much on the matter of price as it does upon the power of the foreign label over the minds of many consumers. Between two coats at the same price, it is his belief that the consumer will take the one of foreign fabric in the belief that he is getting something of greater merit. This clothier sees no cure for the situation which would turn business back to domestic mills where he believes it belongs except a prohibitive tariff which would raise the foreign fabric into the exclusive luxury class.

There was a time when a \$65 overcoat might have been placed in this latter class, but now since that figure is being more generally paid by the public at large, the foreign fabric is getting its opportunity, and the retail price range which might prohibit bulk distribution does not begin until three figures are reached.

The clothier further expressed his belief that cooperative advertising along the lines of educating the consumer would defeat its own end by giving more publicity to the foreign fabrics which would not result in getting the fetich of the foreign label out of the consumer's mind.

## Some Records Railroads

Made Despite Obstacles

THE NATION'S BUSINESS devoted space last month to a consideration of the success of the railroads in overcoming obstacles. A recent issue of *Railway Age* puts together some striking achievements and brings them up to date. Here are six records made by the railroads in recent months and recorded by the *Age*:

1. They moved more freight in November than in any previous November in history and thus far have broken all records for December. The four weeks ended on December 2 correspond roughly with the month of November. In these four weeks the number of carloads of freight moved was 483,000 more than in 1918, 530,000 more than in 1919, 221,000 more than in 1920, and 763,000 more than in 1921. In the week ended December 9 they moved 81,875 more carloads than in the same week of any previous year.

2. The week ended November 25 terminated a period of ten consecutive weeks, in every one of which the railways moved more than 950,000 carloads of freight. This is the first time in history that they ever moved so many carloads for more than seven consecutive weeks.

3. The amount of freight moved in November and December has so greatly exceeded all previous records that it has made the total carloads handled in the 16 weeks ended December 9 larger than the amount ever moved in the corresponding 16 weeks of any other year. To state the matter in another way, the total number of carloads of freight moved since the coal mines began to open late in August is 156,245 greater than in 1920, the previous record year.

4. In 34 out of 35 weeks ended on December 2 the railways moved more carloads of "miscellaneous freight" than they ever did in the same weeks of any previous year. Transportation experts regard the amount of miscellaneous freight shipped in any given period as the best indication of what general business activity and the total amount of freight business offered to the railways in the months immediately ahead will be.

5. The railways on Monday, December 11, loaded 45,886 cars with bituminous coal. This is the largest number of cars ever loaded with bituminous coal on any one day.

6. During six consecutive weeks the total "car shortage" reported exceeded the largest car shortage ever reported in any single week of any previous year. The largest net shortage ever reported before was on September 1, 1920, when it was 146,070 cars. In the six weeks ended on November 23, the net car shortage was never less than 147,259 cars, and

went as high as 175,523 cars. On November 30 the net shortage was 128,191. This figure represents a substantial reduction, but it shows that in spite of the fact that the railways within recent weeks have broken all records with respect to the number of cars loaded and moved at this time of year, the inadequacy of transportation is still almost unprecedented.

## How Shall We Get Better Consumption Figures

THE quantities of goods and materials available from productive processes have been fairly well measured by statistical standards. It is in the purchasing power of communities—their consumption capacities—that a dearth of data checks intelligent investigation of market problems. To stimulate interest in ascertaining the buying power of the ultimate consumer in the continental United States, the J. Walter Thompson Company of New York City has sponsored a prize manuscript competition open to all.

The manuscripts, which may be of any length, are to be submitted to a board of judges consisting of Prof. Robert E. Chad-dock, chairman, professor of statistics at Columbia University; Henry S. Dennison, president of the Dennison Manufacturing Company, Framingham, Mass.; A. Lincoln Filene, treasurer and general manager of Wm. Filene's Sons Company, Boston; Stanley Resor, president of the J. Walter Thompson Company, New York; and Prof. Allyn A. Young, professor of economics, Harvard University. The papers should be in the hands of the chairman not later than September 30, 1923. The subject as given out by the donor is "A Statistical Index of the Purchasing Power of Consumers in the United States." The first prize is \$1,500, the second prize \$800, and the third prize \$500.

In order to limit the scope of the manuscript, the donor suggests that the competitors confine their discussions to the demand for consumers' goods, eliminating any discussion of the demand for raw materials or other types of producers' goods which go into the making of finished products. Although the contestants may include the entire continental United States in their treatment of the topic, it is believed that more satisfactory results will be achieved if they will restrict their studies to some lesser area.

The broad scope of the competition is suggested by the following topics which would be included under the general subject: margins of savings in typical family budgets; classification of expenditures in typical budgets by necessities, semi-luxuries, and luxuries, incomes classified by occupational sections of the country, sizes of towns, types of communities, conditions of prosperity or depression; methods of determining potential demand for commodities of various types.

The competition is open to everyone, but it is expected that it will appeal particularly to graduate students in universities, or schools of business administration of college grade; members of the faculties of institutions of higher learning; and statisticians and others in actual business who have had practical experience in business research.

## Labels for England's Roasts

**BRANDING** Legislation always results in odd situations. Legislation in England is expected to require the butcher shops to use placards in such a way as to inform the housewife whether her roast has been "imported" or is "home-grown."



## Long-Bell Lumber Saves Construction Costs

**L**ONG-BELL trade-marked lumber is put into construction with a minimum of labor—planing, sawing and sorting; with a minimum of waste in time and materials—and time and lumber in any job represent money.

LONG-BELL lumber is surfaced four sides. It has unusual care in trimming.

It comes full length—uniform in width and thickness in all surfaced stock.

It shows uniform seasoning in both kiln and air-dried stock.

It is uniform in quality through the pile. Lower grades have had the same care as upper grades.

Tongued and grooved stocks fit snugly.

Ask your lumberman for Long-Bell brand

**The Long-Bell Lumber Company**

R. A. LONG BUILDING Lumbermen since 1875 KANSAS CITY, MO.



Long-Bell lumber may be identified by the Long-Bell trade-mark on the end of every board.



WAR DEPARTMENT	SELLING PROGRAM
<b>FEBRUARY</b> (These sales dates subject to change) Feb. 1st.—MEDICAL & HOSPITAL SUPPLIES—Brooklyn, N. Y., Auction. For catalog write Medical Supply Officer, 1st Ave. & 59th St., Brooklyn, N. Y., or M. Fox & Sons Co., Official Auctioneers, Baltimore, Md. Feb. 6th.—Q. M. SUPPLIES—Fort Sam Houston, Tex., Auction. For catalog write Q.M.S.O., Fort Sam Houston, Tex. Feb. 9th.—Q. M. SUPPLIES—Chicago, Ill., Auction. For catalog write Q.M.S.O., 1819 West Pershing Road, Chicago, Ill. Feb. 13th.—Q. M. SUPPLIES—Jeffersonville, Ind., Auction. For catalog write Q. M.	S. O., 1819 West Pershing Road, Chicago, Ill. Feb. 16th.—Q. M. SUPPLIES—Columbus, Ohio., Auction. For catalog write Q. M. S. O., 1819 West Pershing Road, Chicago, Ill. Feb. 20th.—Q. M. SUPPLIES—Philadelphia, Pa., Auction. For catalog write Q. M. S. O., 1st Ave. & 59th St., Brooklyn, N. Y. Feb. 23rd.—Q. M. SUPPLIES—Schenectady, N. Y., Auction. For catalog write Q. M. S. O., 1st Ave. & 59th St., Brooklyn, N. Y. Feb. 27th.—Q. M. SUPPLIES—Boston, Mass., Auction. For Catalog write C. O., Q. M. Intermediate Depot, Boston, Mass. The Government reserves the right to reject any or all bids.
SEND FOR CATALOG	SEND FOR CATALOG

FOLLOW UP TO PRODUCTION DEPT.

No. 386

Due <sup>SEP 14 1922</sup>

Overdue *Ten Days*

Reason:

*No Material*

Signature *J. R. Fosters*

FOREMAN

Foreman must fill out, sign and return to Routing Dept. AT ONCE

# WAR DEPT.



12—G. A.

U.S.

## "Until We Get That Material~"

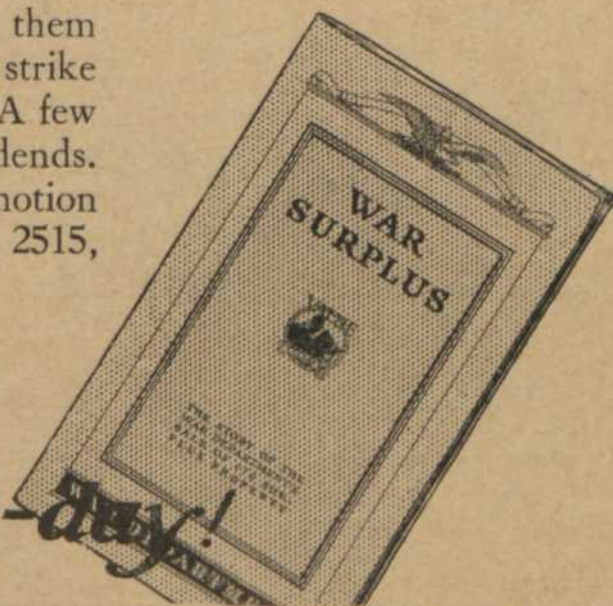
—In the meantime production waits: an experience that few plants have escaped. And idle machines are profit eaters.

That is why the War Department Sales are proving such a boon to so many manufacturers. For it is not alone in the financial savings that their attraction lies, but in the knowledge that you're going to *get* what you've bought just as soon as you need it.

These sales are going on constantly, and if you're not following their announcement in your industrial or daily paper you are missing opportunities that can never again be duplicated.

Just have your clerk watch for them, route them through the various departments, and when you strike something you need, send for the catalogue. A few moments so invested may yield rich dividends. Write to Maj. J. L. Frink, Chief, Sales Promotion Section, Office of Director of Sales, Room 2515, Munitions Bldg., Washington, D. C.

*Write for this  
Booklet to-day!*



# ARTMENT

# Hotels Statler

Buffalo - Cleveland - Detroit - St. Louis

The new Hotel Statler in Buffalo, (1100 rooms, 1100 baths) will open in April, 1923



## You're In Our Confidence

IF YOU have been reading the instructions to Statler employees, printed in these pages, you have a good idea of the helpful, interested, courteous service which we insist that our guests *must have* in these hotels.

If you haven't been seeing them, ask us to send you proofs of preceding advertisements.

That advertising was addressed to you—but it was also, and more especially, addressed to our employees. Every assistant manager, every room-clerk, every waiter, bellboy or other employee of these hotels, *knows that you know* just what instructions he works under. He knows that you are taken into our confidence. He is just that much more watchful to see that you get the kind of service that is promised you—just that much more intent upon making good with you—than he would be if his responsibilities hadn't been defined in writing and passed on to you as well as to him.

That is the real reason behind this advertising: it has been, besides being advertising, a tool of management. It has helped us in our unending insistence to thousands of employees that *our policies must be carried out and our guests must be pleased*. It has at the same time presented to you and to the public our strongest advertising argument, which is that the service we render in these hotels gives you an extra value and satisfaction for your money whenever you come to us.

*Emstatler*

In the Park Square district of BOSTON there is to be another HOTEL STATLER, with 1100 rooms, 1100 baths, opening date to be announced later.

# Hotel Pennsylvania

Opp. Pennsylvania Terminal, New York, *The Largest Hotel in the World*

# Log of Organized Business

A REFERENDUM vote on the question of extending the Federal Government's interest in education is being taken by the Chamber of Commerce of the United States. Organizations making up the Chamber's membership were asked to vote on the three following propositions dealing with the subject:

Do you favor the creation of a federal department of education with a secretary in the President's cabinet?

Do you favor enlarging the present federal bureau of education?

Do you favor the principle of federal aid to education in the states on the basis of the states appropriating sums equal to those given by the federal government?

The three questions to be voted on are embodied as the principal subjects dealt with by the Chamber's Committee on Education, which after a long study of the Sterling-Towner bill and other proposals that have been made, prepared majority and minority reports. The majority members of the committee oppose a new department of education and are against federal aid, but state their belief that the present federal bureau of education should be enlarged.

The minority members advocate a new department of education, together with federal aid as proposed in the Sterling-Towner measure. A still separate memorandum was prepared by one member of the committee, which differs in some respects from both reports in that it opposes a federal department of education but advocates federal aid for some purposes, such as removal of illiteracy and promotion of a more widespread understanding of the principles of the U. S. Government.

The two reports and the separate memorandum were sent out to member organizations that those voting might have the opportunity to go thoroughly into all sides of the subject themselves. Those who signed the majority report were: James J. Storrow, banker, of Boston; Frank J. Leesch, lawyer, of Chicago; John G. Lonsdale, banker, of St. Louis; Henry S. Pritchett, educator, of New York; and Henry D. Sharpe, manufacturer, of Providence, R. I. The minority report was signed by Thomas E. Finegan, superintendent of public instruction in Pennsylvania, and Mrs. Ira Couch Wood, director of the Elizabeth McCormick Memorial Fund for Child Welfare, Chicago. The separate memorandum was prepared by R. Goodwyn Rhett, of Charleston, S. C.

## Points Against Federal Aid

SOME of the principal arguments made by the majority members of the committee against federal aid and against creation of a new government department are summarized as follows:

Agitation for these measures represents a growing tendency to endeavor to centralize all government activities in Washington and to take away from the people the practice of control of their own affairs.

The Sterling-Towner bill does not insure against federal control.

The educational system of the country has been undergoing a steady improvement without federal control.

There is no reason for appropriating one hundred millions of dollars from the federal treasury for the public schools. The states can obtain enough funds within their own borders to meet educational needs.

There is no need for a secretary of education in the cabinet.

It is unlikely that all of the educational activities of the government would be coordinated even if a secretary of education were named.

The appropriations for the present bureau of education should be increased.

The minority members of the committee advocate federal aid and a new government department on the following grounds:

There would be no danger of an extension of federal control as the government merely would cooperate with the states and would seek no measures of control.

A new department of education is justified by the constitution and by the historical development of the government. The constitution leaves control of education in the hands of the states.

The effect of the proposals if carried out would not be that there would be a decrease in the interest of the states in education.

The principle of federal aid has been established already in the provision for land-grant colleges and in other legislation.

As at present constituted the country's educational system has defects which are a menace to the national life.

The Sterling-Towner bill seeks the removal of illiteracy, a national disgrace; it seeks the Americanization of the foreign born; it seeks equalization of educational opportunities as between the urban and rural communities; it would further a program of physical education.

Creation of a department of education would furnish a leadership in education impossible where only a bureau exists; it would bring about a coordination of governmental educational activities.

The Sterling-Towner bill has the approval of a great majority of those responsible for administration of education.

## Business Back of the Subsidy

AMERICA'S position as second maritime nation of the world cannot be maintained without the grant of government aid to present and prospective shipowners. This statement was made by Elliot H. Goodwin, resident vice-president of the Chamber of Commerce of the United States, in this letter to members of the Senate:

Between 1914 and 1922, no subject so constantly occupied the attention of the business men of the nation included in the widespread membership of the Chamber of Commerce of the United States as the question of promoting our merchant marine.

In 1914 and 1915 important studies of this question were made by a special committee of the National Chamber, and stress was laid upon the importance of omitting no effort which would make our country independent of foreign shipping which was likely to fail us in a national crisis. Our membership in August, 1915, by a vote of nearly 3 to 1, coming from 39 states, the District of Columbia, and American chambers of commerce in Alaska, Hawaii, the Philippines, Porto Rico and Paris, France, favored subsidies from the Government sufficient to offset the difference in cost between operation of vessels under the American flag and operation in the same deep-sea trades under foreign flags.

Since then the Marine Bureau of the National Chamber and special committees have constantly reviewed world conditions and their relationship to our commercial prestige and national safety and found additional impelling reasons as time went on for urging the maintenance of the original policy. In March, 1920, in a new Referendum, the Na-



**Easy as falling  
off a log**

That's how easy it is to erect a Prudential Building—in January or in June. Prefabricated—shipped ready to erect—you use at once.

Let us show you how. Ask us *whenever you need a roof* to send you prices and plans on

**PRUDENTIAL** Sectional Steel **BUILDINGS**  
*with the Leak-proof Roof*

*You Profit by:* Low first cost. Quick delivery. Easy erection. Economically expanded or subdivided. Moved without waste. Rust proof. Leak proof. Standardized units making any desired combination. Permanent.

*Large, heavy, special buildings fabricated quickly from stock*

**BLAW-KNOX CO.**

632 FARMERS BANK BUILDING  
PITTSBURGH, PENNSYLVANIA



**BLAW-KNOX**

**BLAW-KNOX CO.**

632 Farmers Bank Bldg., Pittsburgh

Send me a copy of the Prudential Steel Building Book

Name \_\_\_\_\_

Address \_\_\_\_\_

Interested in bldg. \_\_\_\_\_ high \_\_\_\_\_ wide \_\_\_\_\_ long

# Capital for Industry

We have large resources, a long experience in industrial financing, and an organization accustomed to giving prompt, intelligent and effective service.

We offer funds to sound companies requiring cash for extension, re-funding or additional working capital.

## Peabody, Houghteling & Co.

10 S. La Salle Street  
Chicago

Established 1865

366 Madison Avenue  
New York



CAN you locate instantly Mr. Green, your Superintendent, or Tom Webb, your Electrician, for instance—no matter if they are "buried" in some far, seldom-thought-of corner of the factory? Can you find them and talk with them in a few seconds? Or, are they effectually "lost" until your phone operator can dig them up?

AUTOCALL finds them in a few seconds if they are anywhere under the roof. It electrically pages them all over your place, simultaneously.

It pays for itself many times over by the valuable time it saves day after day. It is now accepted as an essential among the leaders of industry.

Let us tell you about the AUTOCALL Paging Service.

The Autocall Co., 233 Penn Ave., Shelby, O.

**Autocall**  
Paging Service  
Industrial Fire Alarm Service  
Watchmen's Supervisory Service

## The World's Safest Bank Checks

because—

They are made of the World's best safety paper

because—

They are insured in the Hartford Accident & Indemnity Co. for \$1,000.00 against loss through fraudulent or felonious alterations

because—

They are protected by the service of The William J. Burns International Detective Agency, Inc.

**SUPER-SAFETY**  
**Insured**  
**BANK-CHECKS**

**BURNS' DETECTIVE PROTECTION**

Ask your banker for this sure protection—Write us for further information

**The Bankers Supply Company**  
The Largest Manufacturers of Bank Checks in the World  
NEW YORK CHICAGO DENVER  
ATLANTA DES MOINES SAN FRANCISCO



tional Chamber's membership by a vote of over 15 to 1, coming from 44 states, the District of Columbia, and American Chambers of Commerce in Hawaii, Porto Rico, Alaska, Mexico, Italy, France and Cuba, favored a "general declaration by Congress to give aid toward the maintenance of a privately owned and operated American Merchant Marine."

Again in 1922 the subject was brought before our membership. At our annual meeting a resolution was unanimously adopted favoring an adequate privately owned and privately operated merchant marine, with aid from the Government which is essential to the maintenance of such a merchant marine.

It was recognized then that our position as the second maritime nation of the world, newly gained as a result of shipbuilding operations during the war, could not be maintained without the grant of government aid to present and prospective owners of our ships.

We urge your earnest consideration of the position of the membership of the National Chamber upon this important matter of a ship subsidy.

### Collective Cost Studies

TRADE ASSOCIATIONS or groups interested in cost accounting may meet solely for the purpose of the study of costs, the detection of errors and the improvements of their methods without contravention of law in the opinion of Commissioner Nelson B. Gaskill, of the Federal Trade Commission. Mr. Gaskill further believes that it is perfectly legal to make reports of such conferences available to absent members, government agencies and other interested parties.

This opinion was expressed unofficially by Mr. Gaskill, in response to an inquiry from E. W. McCullough, manager of the Fabricated Production Department of the Chamber of Commerce of the United States. Mr. Gaskill writes:

I have previously expressed my firm belief that cost accounting is a legitimate trade association activity, and subsequent consideration has merely strengthened this conviction. Collective analytical study of the results of cost accounting furnishes an invaluable supplement to the individual cost accounting work. Comparison of results, analysis of results and the study and discussion of these results lead to the improvement of methods and the increase of efficiency. To prohibit collective study of costs for the purpose of their analysis, the detection of errors, and the improvement of methods, is to shackle educative progress.

Of course the legal situation is confused by reason of the decisions in the Hardwood Lumber case and the Linseed Oil case, and it will be some time probably before this confusion will be cleared by any additional authoritative decisions. Trade associations must therefore determine as accurately as they can the legitimate field of proper endeavor and, having so taken counsel, should, without hesitation, resting upon their legal advice and the clear consciousness of the propriety of their efforts, proceed without fear, willingly inviting the test of the courts' consideration of their conduct.

I cannot find any reason for believing that the activities as defined by your questions are *per se* illegal. They may become so, of course, if coupled with the use of other practices directed toward an unlawful end. But it is to be observed that a course of conduct, lawful in itself, does not become unlawful merely because it may be used to accomplish an unlawful object. A course of conduct lawful in itself is judged by its result or by the intent with which it is used. Prior to the appearance of an unlawful result the unlawful intent must be so clearly manifested that the unlawful result is forecast as a natural and proximate consequence before the conduct can be condemned. A lawful course of conduct there-



From a Drawing by CARL HECK  
©ARCO 1923

Many a family knows from painful experience how true is the old song:

"They pushed the damper in and they pulled the damper out but the smoke went up the chimney just the same."

## No longer true!

THE PROGRESS of heating science up to the time when the American Radiator Company was formed is pretty well summarized by this old song reprinted above.

Homes were either too hot or too cold; and no matter what you did to the damper the smoke went up the chimney, carrying most of the heat along.

One of the first steps taken by the American Radiator Company was the establishment of a department for determining definite performance standards for its boilers and radiators. That department developed into the Institute of Thermal Research, the largest laboratories in the world devoted exclusively to problems of better warmth.

Here materials are tested and every new type of boiler and radiator

must prove in advance precisely what it can do.

Architects have long been familiar with the service of the Institute of Thermal Research. It is one large reason why they so often write "AMERICAN Radiators" and "IDEAL Boilers" into their specifications. Dealing as they do with life's most sacred investment, they like to insist upon materials from which scientific tests have eliminated every element of chance.

The little book, "Better Warmth and Better Health," published by this company, contains ten definite suggestions for saving coal, and other information of value to every home owner.

May we send you a copy? A card to either address below will bring it to you at once.



Institute of Thermal Research  
of the

American Radiator Company  
where the ratings of boilers are definitely determined by tests with chimneys of many different sizes and heights.

# AMERICAN RADIATOR COMPANY

IDEAL Boilers and AMERICAN Radiators for every heating need

104 West 42nd Street, Dept. 6  
NEW YORK

AMERICAN IDEAL  
RADIATORS BOILERS

816 So. Michigan Ave., Dept. 6  
CHICAGO



SIX-ROOM HOUSE No. 610

Designed for Service Dept., American Face Brick Association

This is one of the ninety-six designs in "Face Brick Bungalow and Small House Plans."



## Homes of Lasting Satisfaction

For the home-builder who seeks a house that will be beautiful when completed and grow more charming with age; that will be as staunch in the days of his grandchildren as in his own time; that will require no repairs and but a minimum of upkeep; that will save in insurance rates and fuel bills—in short, for the home-builder who seeks the utmost of beauty and durability at the greatest ultimate economy, Face Brick has an interesting story. It is told in detail in "The Story of Brick." For your copy, address American Face Brick Association, 1730 Peoples Life Building, Chicago, Illinois.

### Send for these booklets:

"*The Story of Brick*" is an attractive booklet with beautiful illustrations of modern homes, and discusses such matters as Comparative Costs, Basic Requirements in Building, the Extravagance of Cheapness, Financing the Building of a Home, and kindred subjects. A copy will be sent free to any prospective home-builder.

"*Face Brick Bungalow and Small House Plans*" embrace 96 designs of Face Brick bungalows and small houses. These houses are unusual and distinctive in design, economical to build, and convenient in floor plan. "Face Brick Bungalow and Small House Plans" are issued in four booklets, showing 3 to 4-room houses, 5-room houses, 6-room houses, and 7 to 8-room houses. The entire set for one dollar; any one of the books,

twenty-five cents. We can supply complete working drawings, specifications and masonry quantity estimates at nominal prices.

"*The Home of Beauty*" contains fifty designs of Face Brick houses, mostly two stories, representing a wide variety of architectural styles and interior arrangements. These houses were selected from 350 designs submitted in a nation-wide Architectural Competition. Sent for 50 cents. We also distribute complete working drawings, specifications and quantity estimates for these houses at nominal cost.

"*Orienting the House*" is an illustrated booklet, with a sun dial chart and explanation for placing the house with reference to light and shade. Interesting to any prospective builder. Sent for 10 cents.

fore may not be condemned by presumption of an unlawful intent when an unlawful result must first be presumed in order to deduce from it the unlawful quality of the intent which guides conduct.

A trade association activity conducted strictly in accordance with the terms of your questions seems to me to stand clearly revealed as a legitimate activity directed to a lawful result. My answer to both your questions would therefore be in the affirmative.

### Arbitration Court Meets

WORD HAS been received by the American Section of the International Chamber of Commerce that the first full meeting of the Court of Commercial Arbitration recently established by the International Chamber was to be held in Paris, Friday, January 18.

Appropriate ceremonies will mark the inaugural meeting of the entire court. The President of the French Republic has agreed to be present together with the following: the President of the Council and Minister for Foreign Affairs; the ambassadors and ministers of the countries affiliated with the International Chamber, the Chancellor and Minister of Justice, the Minister of Commerce, the members of the Trade and Civil Legislation Commissions of the Senate and Chamber of Deputies, the members of the Paris Tribunal de Commerce (a body of business men with certain powers of jurisdiction), the presidents of the principal economic associations in France and the representatives of the International Law Association.

The meeting was to be held in the audience chamber of the *nisi prius* court of the Court of Cassation at the Paris Law Courts, which was placed at the disposal of the International Chamber for the first meeting of the Court of Arbitration.

### Business Outlook Bright

BUSINESS indications for 1923 point to several months at least of continued commercial activity at a level substantially above that of 1922, in the opinion of the Committee on Statistics and Standards of the Chamber of Commerce of the United States, of which Archer Wall Douglas is chairman.

"In spite of many influences tending to restrict business activity," says the committee in its final 1922 report, "general business passed the normal point in the month of November."

The report is accompanied by a chart showing that business, since the beginning of the war, reached an extreme height of activity near the end of 1916 when it was 15 per cent above normal and that it reached its lowest ebb about the middle of 1921 when it was 18 per cent below normal.

A summary of the report follows:

**New England**—Manufacturing conditions are generally good. This is especially true of such lines as shoes and textiles. Retail business, however, is somewhat adversely affected as a result of the prolonged strikes now ended. Agriculture is not in such good shape, especially in Maine, where the raising of Irish potatoes suffers from the double combination of a disappointing crop and exceedingly low prices.

**South**—Throughout the cotton belt the nature of business depends upon the size of the cotton crop in each particular locality, as the price is unusually high, which means prosperity to those who own cotton. The cotton is practically all ginned and has largely passed out of the hands of the farmers and planters. Long-standing obligations are being settled by the latter to a very great extent and there is more buying in the South generally than for

two years past. Buying is still of a conservative nature, however. Broadly speaking the entire South offers the promise of very good business during the winter and spring.

**Middle West**—All the industries other than agriculture are well employed. At this time there prevail advancing prices on the important farm products, such as corn and wheat, materially fair prices on hogs and sheep and generally low prices on cattle. The dairy industry is a very present help in time of trouble.

**West**—In that part of the country west of a line drawn north and south from the center of the state of Kansas to the Rocky Mountains there are not so many good spots, rather more poor ones, although fair conditions are in the ascendant. Much of the trouble comes from the distance of this part of the country from the primary markets where the greater part of the agricultural products are sold. Freight rates are a very serious handicap.

**Pacific Coast**—California is in fine shape, owing to the influx of visitors and of new residents, the fairly good crop yields with fairly good prices and the large amount of building going on. The Pacific Slope sections of Oregon and Washington are better than the eastern portions because of activity in lumber, in dairy interest and commerce on the sea.

**Building**—Building is in excellent shape throughout the country, with the exception of those agricultural districts where crops were scanty or prices unremunerative. Other than in such localities there will be much construction and building throughout the spring, but it is evident that high prices for material and labor will soon bring building activity to its peak, especially as it is only an apparently short time ahead when the necessity which prompted this activity throughout the past year will be to a large measure satisfied.

**Mining**—In Pennsylvania mining varies from fair to good and this is true in the greater part of the country wherever mining is carried on, with here and there some poor conditions. Coal mining has about caught up with demand, more so in the West than in the East. The mines generally are only running about from half to three-quarter time. Nowhere is mining fully employed. In lead, zinc and copper the principal difficulty seems to be the presence of the large surplus above ground, which though slowly diminishing still prevents full activity and any further advance in prices. The crude oil industry suffers from an overproduction.

**Prices and Buying Power**—Advances in fabricated materials are looked upon with suspicion by both dealers and consumers, unless it can be shown that they are warranted by the facts of the situation, and, contrary to usual experience, advances in prices are meeting with stubborn resistance and are a handicap rather than an incentive to buying.

### America's Industrial Growth

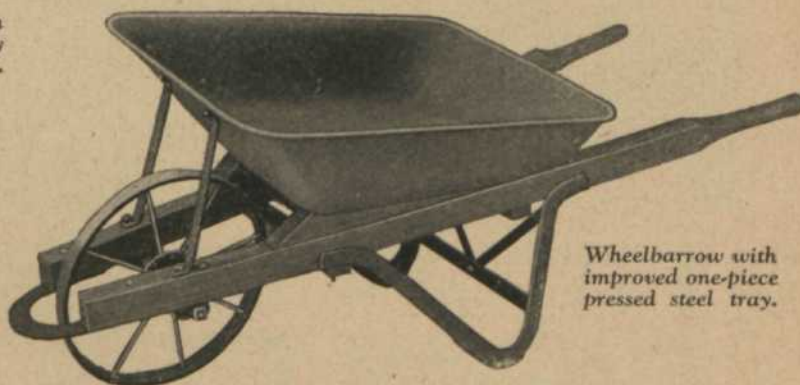
SOME STARTLING figures, showing the remarkable industrial expansion of this country during the last two decades, are given by Julius H. Barnes, president of the National Chamber, as follows:

During the twenty years between 1900 and 1920, the volume of industrial production of this country increased 96 per cent, while our population was increasing 40 per cent. In the same twenty years the volume production of our mines increased 128 per cent and since the product of mines largely maintains the products of industry we may assume that an increased production of 128 per cent from the earth assured a stable basis for the maintenance of our industrial production and dismiss that factor for the present.

Therefore, we arrive at this consideration: that during twenty years in which our population increased 40 per cent, the product of our industries—the volume product, not the value—increased 95 per cent. See if we can soundly ascertain what that meant in human comfort and contentment. Since the gain was steady and cumulative the total aggregate gain



Wheelbarrow with sheet metal tray riveted together.



Wheelbarrow with improved one-piece pressed steel tray.

## If You Were a Laborer—

IF you shoveled cement or sand out of a wheelbarrow all day, wouldn't you like a barrow with a tray that had smooth sides which didn't catch your shovel like the ordinary riveted tray does?

That's exactly what the Buch Manufacturing Company of Elizabethtown, Pa., thought when they asked our engineers to redesign the trays of their wheelbarrows from a riveted to a pressed shape.

### Compare the Results

A brief study of the photographs of the old riveted tray and the pressed steel tray will show that the pressed steel tray is:

1. Absolutely watertight.
2. Uniform in shape and quality.
3. More rigid because it is all one piece.
4. Smoother—without seams or rivets to catch a workman's shovel.

### Can Pressed Steel Refine Your Product?

Here's a case where pressed steel brought no money savings, but did bring *added sales arguments for the product sold*. Perhaps pressed steel can give you more "talking" points that will help boost sales. It will cost you nothing to have one of our engineers go into the subject with you at your convenience, but there is no time like now.

"Press it  
from Steel  
Instead"

YOUNGSTOWN PRODUCTS FOR MANUFACTURER & BUILDER			
AGRICULTURAL	AUTOMOTIVE	GENERAL	FIREPROOFING
TOOL & WEIGHT BOXES	RADIATOR SHELLS - CRANK CASES	LIFT TRUCK PLATFORMS - TANK HEADS	MACHINE GUARD & FACTORY PARTITION MATERIAL
LEVER LATCHES - TURNING GONG WHEELS	HOUSING COVERS - BRAKE DRUMS	INDUSTRIAL CAR WHEELS - WHEEL DISCS	OLD FIRMED CHANNELS - ANGLES - NOTED BENT & LIGHT
HANDS TOOTH CLAMPS - CULTIVATOR SHOES	CLUTCH DISCS - STEP HANGERS	HATCH CLEATS - BARREL HEADS	WORKING PIPES & TUBES - COVERS - BRAD - STAPLES - NAILS
LAND ROLLER HEADS	HUB FLANGES	COMPOUND BOXES	MAJORING LATH & IDEAL METAL LATH

**THE YOUNGSTOWN** Main Office and Factories  
**PRESSED STEEL CO.** WARREN, OHIO  
District Offices  
New York—50 East 42nd Street  
Chicago—McCormick Building  
Philadelphia—401 Finance Bldg.

Ferguson-Designed and Built  
Factory for Showers Bros.  
"America's Largest Furniture  
Makers" at Burlington, Iowa.

## Big ideas are usually simple

WE believe that the ideal factory layout is in a straight line between a large storage for raw material and an adequate storage and shipment point for the finished product.

In a recent layout for a mammoth furniture factory for Showers Bros. Co. at Burlington, Iowa, we held so closely to this ideal that one of the managers states—"Our Bloomington plant was considered ideal from a production standpoint, but I wouldn't think of returning to Bloomington after working in this new Burlington plant."



## About buying a building

By H.K. Ferguson

### No Juggling with Factors of Safety

EVERY Ferguson building is a permanent structure of brick, concrete and steel—built to endure. In other words, there is nothing temporary about Ferguson construction and no risky juggling with factors of safety. There is no building code in the United States which will not accept a Ferguson-designed building.



### Unit Responsibility

THE H. K. FERGUSON organization will assume unit-responsibility for the design, construction, equipment and delivery of your complete building on a fixed date at a fixed cost. More than two million square feet of Ferguson-designed floor space built during the last 2½ years stand as permanent proofs of Ferguson dependability. The low costs attained by Ferguson methods will surprise you.



Write for our book,  
"Better Buildings for Bigger Business"

## THE H. K. FERGUSON COMPANY

HAROLD K. FERGUSON, President

ENGINEERS AND BUILDERS

PHONE: RANDOLPH 6854

6523 Euclid Avenue, Cleveland

NEW YORK, 31 West 43rd Street, Phone Murray Hill 3073

CINCINNATI, 318 First National Bank Bldg., Phone Main 2739

CHICAGO, 1637 Monadnock Block

BRANTFORD, ONT., Temple Bldg., Phone Brant. 3000

ATLANTA, 218 Healey Bldg., Phone Ivy 3813

# Ferguson

## ENGINEERS AND BUILDERS

in twenty years of industrial production by a mathematical computation amounts to 1,000 per cent increase. If we can, by any method of speculation, as intelligently as possible, apportion that increase to the addition to household and everyday capital, the things we use and wear on every hand, we can ascertain how much more of the possessions which we use in everyday living we have today than in the year 1900. A fair estimate of this would indicate that 25 per cent is of non-replaceable production. This extended cumulatively for the twenty years indicates that in the year 1920 the average home in the United States possessed three and one-half times the household capital, the things of everyday use which it possessed in 1900.

Again, referring to statistics, and trying not to make them burdensome, they tell a story in respect of human conveniences which I submit to you very briefly. In 1906 we had one automobile for every 1,788 of our people, and in 1920, one for each eleven. In fourteen years we had progressed so that one in eleven had the use of an automobile whereas fourteen years before it was one in eighteen hundred.

In 1900 we had one telephone for each eighty-four of our people and in 1920, one for each eight. That is, in twenty years we had increased the use of the telephones in daily use ten times.

In 1907 electric users numbered one to forty-five of our people; and in 1917, one to fourteen.

We produced in 1909 about 350,000 phonographs, and in 1920, 2,500,000. In ten years we have put in the homes of this country 15,000,000 such instruments.

#### Learning Has Grown Also

THAT this material progress was not destructive of educational ideals of our people is indicated by applying another test. We had enrolled in institutions of advanced learning in this country in 1909, 226,000 students. In 1920 we had 416,000. That is, in eleven years the students in our advanced institutions had almost doubled.

Within the last two years we have developed the marvel of the radio. We do not understand it. We take it for granted. That process is going into industry with the aid of science in a thousand directions and at an accelerated pace. For instance, within the last two years the vital principle of organic chemistry which has revolutionized the processes of science in the aid of industry again, the theory that all regrouping and all sources of power in organic chemistry are due to breaking down of molecular struggle and regrouping of energy, suggests a thousand ways in which industry will be enlarged. In Dayton two months ago I was shown a fluid, a product of seven years of work, only perfected by the aid of this new theory, that discovery within the last two years, which when mixed one gallon to 1,500 gallons of gasoline will double the mileage of gasoline in this country. It is as if we had fifty years' supply of gasoline under our soil and overnight discovered that we had the assurance of one hundred years, instead. And that is no dream. That is in the research laboratory of the General Motors Corporation, which is cold bloodedly spending two million dollars a year to find out where science can short cut and cheapen the processes of industry; and they tell me within this next year you will buy this fluid with your gasoline in every gasoline station in the United States. They showed me automobile bearings made by regrounding of certain metals and ores, regrouping in certain proportions, treated with chemicals and heat in certain ways, making an unwearable surface which is still absorbent to oil like blotting paper, so that the oil-less bearing is here to stay. That is not an experiment. They showed me bearings running under test for six thousand hours without a sign of wear and with no undue heat.

The radio suggested a new avenue of discovery. It has been observed and you will agree that you may store potatoes in the cellar in complete darkness for the winter but when spring comes without a sign of light some in-



Your stationery store is a "Service Station" for DeLuxe Loose-Leaf Systems

You will find there every item of Loose-Leaf your office needs. You will also find enlightenment and help in systematizing your record-keeping methods. New time-and-money-saving appliances are being frequently introduced through your stationer

Make it a point to talk "office equipment" with your stationer

WILSON-JONES LOOSE-LEAF CO.  
NEW YORK CHICAGO ALBANY CITY  
PHILADELPHIA SAN FRANCISCO



## The "home office" records of your insurance

Where more ledgers are used than anywhere else in the world, there you will find the most DeLuxe Loose-Leaf Ledgers.

The Insurance Companies are scientific buyers of this equipment. Continual record-keeping on every policy and every investment is necessary.

To take best care of this huge task, they accept DeLuxe devices as most satisfactory and economical.

Let your stationer tell you why DeLuxe Loose Leaf is best for you.

# DeLuxe Loose Leaf

ASK YOUR STATIONER

## Continuous Buying

85,000 business men read these pages monthly. *Every day* they are buying hundreds of thousands of dollars worth of products to carry on the business of the country.

It is an exceptional audience before which to place your sales messages, particularly if the business market consumes a good part of your output.

An *inquiry* from you or your advertising agent will bring *complete details* regarding the strength of this concentrated market.

The NATION'S BUSINESS  
WASHINGTON, D. C.



## Why the Finish on the Fenders Lasts so Long

Automobile builders had to learn to do many different kinds of things—and to do them well. An automobile is the composite product of many allied crafts.

The matter of finish is one that has had to be worked out; and so far as fenders and similar metal parts are concerned, electric heat has found the answer. Your fenders are enamelled, and the enamel is baked on electrically; which means just the right temperature, applied for exactly the correct length of time, as well as the absence of dirt and air currents and other conditions which interfere with a perfect job. The finish on the fenders of a good car lasts a long time

because electric heating apparatus makes such good work of the enamelling process.

Cadillac, Packard, Paige and Jordan are among the automobile builders who use Westinghouse Industrial Heating apparatus in their enamelling departments.

But it would be a mistake to think that only the automotive industry utilizes these modern devices. *Every* industry uses, or can use them; and it will not be long before this economical way of obtaining exactly controlled heat in ovens, furnaces, and all types of heaters will be the accepted practice, just as it is already the preferred method with those who have tried it.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY • Offices in all Principal Cities • Representatives Everywhere

# Westinghouse

© 1923 W. E. & M. Co.

definable influence reaches the potato and says, "it is time to grow," and it sprouts, but it sprouts white and not green, so that there is something lacking in solar energy, some influence that reaches it, but not the full measure of solar energy which is the secret of the service of science through organic chemistry to human needs.

Now, by segregating various lights and shades, the General Motors Corporation is appropriating hundreds of thousands of dollars for a deliberate campaign to find out what makes the grass green, why corn takes 95 per cent from the air and 5 per cent from the soil, and when they put their finger on that solution of solar energy they will open the threshold to all the fairy land of service in human needs.

This new facility lends itself peculiarly to American ideals of a solution by free competition rather than by regulation. The motor road is open. The shuttle itself is flexible. It responds to the bidding of demand and shrinks with a shrinkage of supply of tonnage. It is an ideal American measure of transportation. Perhaps the railroad rate structure does not give it a fair chance at its full radial of service, lifting from the shop door to factory door without transportation by rail. These two facilities are considered by highly specialized business ability.

In 1907 James J. Hill staggered this country with the statement that we must spend five and a half billion dollars in perfecting our railroad transportation, but the country of its own free will, under the play of competition and under the law of supply and demand, has spent the following things without any public commotion:

Fifteen to twenty billion dollars for automobiles and motor trucks in the last fifteen years.

Six billion dollars in improving our roads for the purpose of facilitating the movement of those motors.

Five billion dollars in automobile factories and service stations in this country.

This total expenditure of twenty to twenty-five billion dollars freely came from the pockets, the earning surplus of our people, because here was something in which the individual preference, the actual flexible law of supply and demand, had full play. Now, if this comparison is right, doesn't it give you some misgivings as to the value of rigid regulation, over-regulation? Doesn't it suggest that the method of securing the continued development of the high standard of living of America lies in facilitating those processes which respond to individual initiative, to the flexibility of the natural laws and the processes of trade rather than through legislation?

## Specialization in Crops and What It Means

By Caroline B. Sherman

Assistant in Market Information, United States Department of Agriculture

NATIONS, states and individuals have found that it pays them best to produce those crops for which their climate, soil and conditions of farming are best suited. Thus the nation's business of farming has tended to become as highly specialized as its other lines of industry.

The development of specialization in agriculture is brought home forcibly by figures recently made public by the Federal Department of Agriculture in which the production of the five leading states of each of several farm commodities are compiled for the past three years.

It is not surprising to find that five southern states raise more than half the sweet potato crop of the United States. Rice, peanuts, tobacco and buckwheat are generally recognized as localized crops but figures show



CLEAN  
FLOORS  
*in American Business*

## General Motors use Electric Scrubbing!

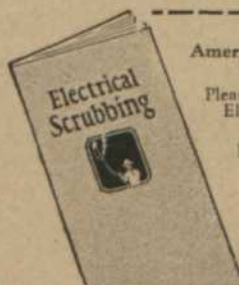
For two years, ever since its completion, the General Motors Building, in Detroit, has used Finnell Electric Scrubbing Equipment. The floors of this mammoth new office building, as a result, are CLEAN.

CLEAN FLOORS—machine-cleaned—in large office buildings and factories are the accepted thing today. The Finnell System of Electric Scrubbing is no longer an experiment, but a proved necessity. Four thousand buildings and factories have demonstrated this during the past ten years.

Many users of Electric Scrubbing are saving large sums of money, and all are getting CLEANLINESS that shows a return of full value for the money spent—something hand-cleaning never did. Send for booklet shown below.

American Scrubbing Equipment Sales Co.  
HANNIBAL, MO.  
District Offices in Principal Cities

## "Clean Floors Reflect Clean Business". FINNELL SYSTEM OF ELECTRIC SCRUBBING

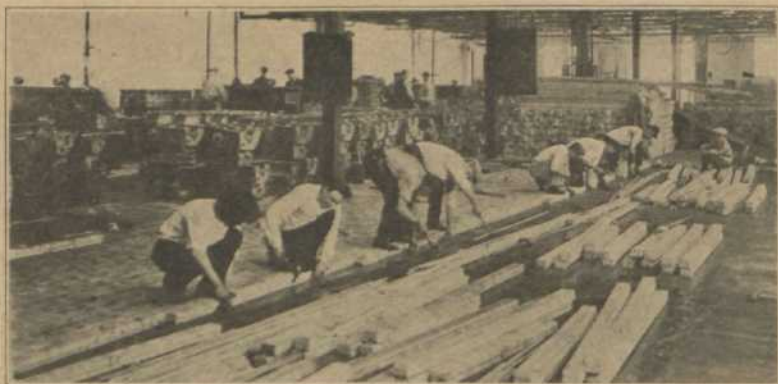


EXECUTIVE'S MEMO

American Scrubbing Equipment Sales Co.  
22 N. Collier Street, Hannibal, Mo.  
Please send illustrated story of the invention and development of Electric Scrubbing.

Firm Name.....  
Address.....  
My Name.....  
Title.....

# Investment well justified



Bloxonend replacing a flat grain floor in the Ferro Machine & Foundry Co.'s plant, Cleveland. By our lateral nailing method Bloxonend is laid directly over concrete slab without embedding sleepers

Bloxonend (not loose blocks) not only outwears any other known flooring but it stays smooth always. Its smoothness speeds up transportation while its comfortable resiliency eliminates fatigue of workmen caused by cold, hard floors.

Bloxonend users include the leaders in practically every industry where floors are subjected to hard wear and lasting smoothness is the desideratum. All will substantiate our claim that its initial cost is justified by ultimate economy and durable satisfaction.



Have your secretary write nearest office for Booklet "M" which contains detailed information

## Carter Bloxonend Flooring Co.

R. A. Long Bldg., Kansas City, Mo.

Chicago: 332 South Michigan Ave. Cleveland: 1900 Euclid Ave.  
New York: 501 Fifth Ave. Boston: 312 Broad Exchange

# BLOXONEND

Lays Smooth—Stays Smooth

## If you sell to men with better than average incomes

ACCORDING to the most recent Government Tax reports corporation officials were paid annual salaries totaling \$709,000,000. A remarkably high average personal income is indicated for a comparatively small group of men.

If you are marketing a product appealing to men with better than average income, and with generous requirements, The NATION'S BUSINESS reaches such men, who are the successful business leaders in every community in the country.

Spread your sales announcements before them in these pages with directness, with authority, and with economy.

We shall be glad to send you, or your advertising agents, the complete details on request.

The NATION'S BUSINESS  
Washington, D. C.

them to be more localized than generally thought.

Four southern states raise more than 77 per cent of all the rice of the country, and in 1921 five states produced 99 per cent of the total. Five southern states produce about two-thirds of all our tobacco. Five southern states from out these two groups produce 80 per cent of our peanuts. Five states produce more than 97 per cent of our flaxseed and two states, Pennsylvania and New York, produce about two-thirds of the total buckwheat crop.

Cotton, the "Snow of Southern Summers," covers a wide area, so that five leading cotton states contribute only about 70 per cent of the total. The term "Cotton Belt" is no longer all-inclusive since both California and Arizona are now shipping cotton in significant quantities.

Corn, wheat, barley and rye are country-wide crops, yet five states of the Middle West raise more than half the winter wheat-crop; Minnesota, the Dakotas, Washington and Montana produce about three-quarters of the spring wheat crop.

Five states, California, Minnesota, Kansas and the Dakotas, contribute decidedly more than half the barley crop to the nation. Minnesota is also among the five states, all in the Middle West, that raise more than 60 per cent of the total output of rye.

In spite of the fact of great corn states, and a Corn Belt, corn production is widely distributed so that a five-state study includes only a little more than 44 per cent of the crop on a three-year average.

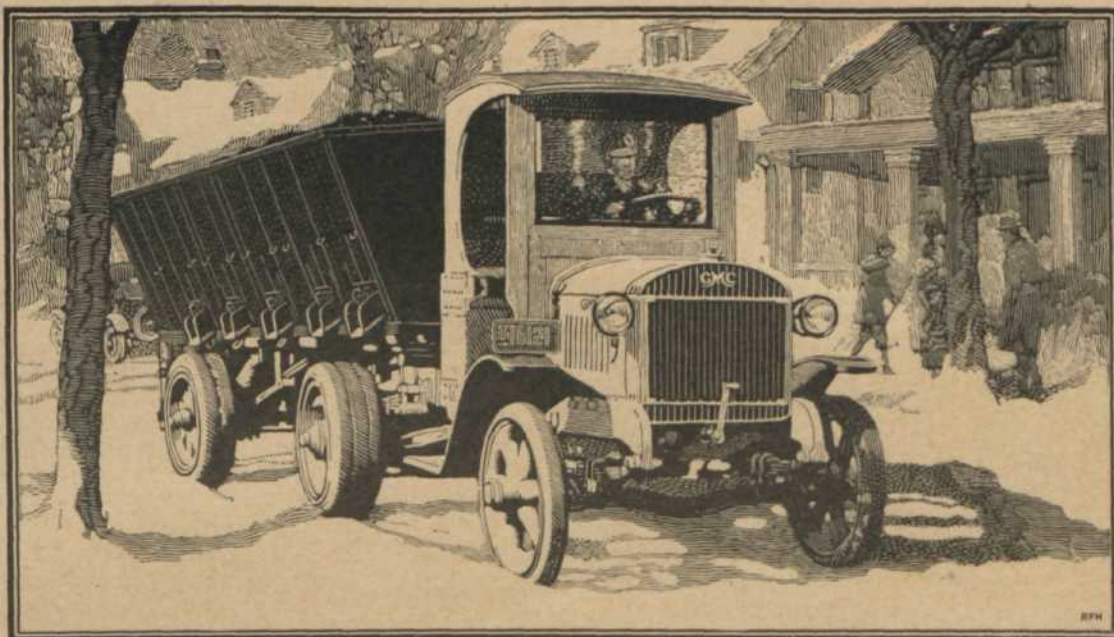
### "The Five State Groups"

THE five-state groups showing the widest range in location relate to fruits. The big apple states are as widely separated as Washington and Oregon, Virginia and New York. The largest peach states are far apart, including California, Georgia and Texas. Usually five states, though not always the same five, produce nearly three-fourths of the total peach supply of the country and some of these states are included in the five that raise nearly three-fourths of the pears.

Such a study of production, showing the heavy yields in the West and South while the largest cities lie chiefly to the north, emphasizes the necessity for a vast and efficient marketing machinery that these food necessities may be supplied in regular quantities, when wanted, in the large consuming centers of the nation, and of the world. As Representative Sydney Anderson aptly states, the Mississippi Valley separates two distinct economic worlds, one world agricultural in character, the other world essentially industrial in character. The problem is to consolidate the East and West into one economic world instead of two.

The following table shows the percentage of certain crops produced in the five leading states during 1921:

Rice	99.4
Flaxseed	97.7
Peanuts	83.0
Buckwheat	79.7
Spring wheat	78.4
Tobacco	76.1
Peaches	75.0
Pears	72.1
Cotton	66.8
Rye	63.2
Barley	62.7
Apples (bushels)	62.0
Winter wheat	53.5
Sweet potatoes	52.4
Oats	47.6
Corn	42.4
Potatoes	42.4



## Every Wearing Part Quickly Replaceable

*Accessibility of GMC Construction Lowers Cost of Both Replacements and Time Needed to Make them*

Maintenance of GMC trucks has been made much less costly than that of the average motor truck by the marked accessibility of every wearing part of both engine and chassis.

With a single exception, every point of wear in GMC trucks is fitted with a removable bushing or bearing. Of all of the wearing parts, only the valve seats are not replaceable and into these a sufficient surplus of metal has been cast to provide for the normal wear during the life of the truck.

Moreover, these bushings and bearings reduce materially the actual cost of new parts, since they take the wear that would eventually

make much larger and more expensive units unfit for service.

GMC features of construction such as removable cylinder walls, removable valve lifter assemblies, GMC pressure lubricating system, connecting rods with integral bearings—all are exclusive GMC refinements of design that contribute directly to reducing upkeep costs.

There is every reason why a GMC truck should remain in service for many years. Everything that the most rigorous usage will wear out may be put back anew without in anyway necessitating the replacement of the engine or chassis itself.

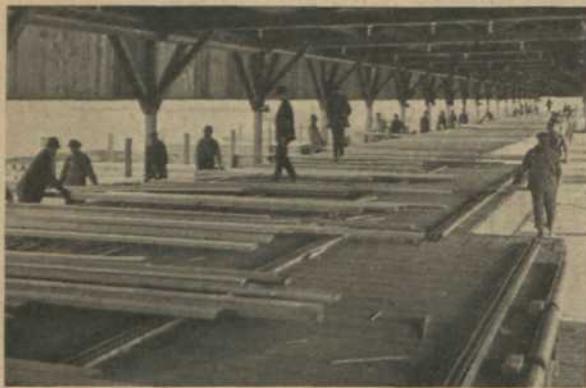
**GENERAL MOTORS TRUCK COMPANY—Pontiac, Michigan**  
*Division of General Motors Corporation*

*GMC Truck Chassis list as follows, One Ton, \$1295; Two Ton, \$2375; Three and One-half Ton, \$3600; Five Ton, \$3950; Five Ton Tractor, \$2450; Ten Ton Truck Tractor, \$3700; Fifteen Ton Tractor, \$4050; all prices for Chassis only at the factory, tax to be added.*

# General Motors Trucks



"GMC TRUCKS ARE SEVEN STEPS AHEAD"



The grading and sorting table at one of the fifteen Weyerhaeuser manufacturing units. Here the lumber is graded, regraded, checked, inspected and sorted by men with years of experience and training. Weyerhaeuser thoroughness makes for uniformity in grades.



This alley in the storage and drying yard of one of the Weyerhaeuser mills gives an idea of the immense quantities of lumber accumulated by this organization to take care of the needs of its customers. The higher grades are protected in storage sheds.

## The Importance to Industry of Uniformity in Its Lumber Supply

THE industrial concern, hampered in one or more of its operations by a lack of uniformity in its lumber supply, will find it worth while to inquire into the service the Weyerhaeuser organization is rendering to a wide variety of industrials.

This service insures a constant supply of lumber, uniform in grade, car after car. The tenth or hundredth car is like the first. The first car in the type of wood and in the particular grade best fitted to meet the requirements of the buyer.

Such a service reduces operating costs in many ways. Production is not hampered through lack of the right kind of lumber. There is no unnecessary wastage of lumber. Handling costs are reduced.

In short, the user is able definitely to standardize lumber practices and factory operations.

THE Weyerhaeuser organization has for years studied industrial lumber needs. It has found that the best way to serve American Industry is to help a group of permanent customers find the wood best adapted to their requirements; and then to keep them supplied with the exact type of lumber in the correct grade, size and quantities they require.

Such a lumber service is made possible because of the timber resources, specialized

equipment and highly-trained personnel of the Weyerhaeuser organization:

A large supply of mature timber of fifteen different species, and many types within these species, sufficient for decades of cutting.

Scores of logging camps guaranteeing a steady stream of suitable raw material.

Fifteen complete modern manufacturing units.

Seasoning processes that prepare lumber scientifically for each exacting need.

A crew of men at all the plants, with years of experience in producing, grading and shipping Weyerhaeuser quality lumber.

A corps of salesmen trained to think as purchasing agents and buyers have wished for lumber sellers to think.

Distributing facilities backed by fifteen immense mill stocks and two great strategically located storage plants.

EACH year more and more concerns are finding what this type of lumber service means in standardizing their lumber practices and factory operations.

The Weyerhaeuser Sales Company distributes Weyerhaeuser Forest Products through the established trade channels. Its principal office is in Spokane, Washington, with branch offices at 208 So. La Salle St., Chicago; 220 Broadway, New York; Lexington Bldg., Baltimore; and 4th and Robert Sts., St. Paul; and with representatives throughout the country.

### WEYERHAEUSER FOREST PRODUCTS SAINT PAUL • MINNESOTA

Producers for industry of pattern and flask lumber, factory grades for remanufacturing, lumber for boxing and crating, structural timbers for industrial building. And each of these items in the species and type of wood best suited for the purpose.

